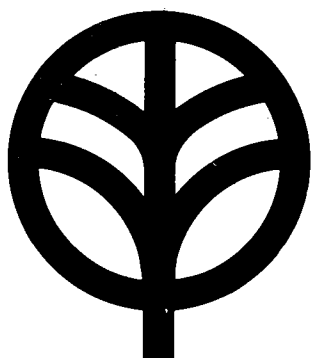
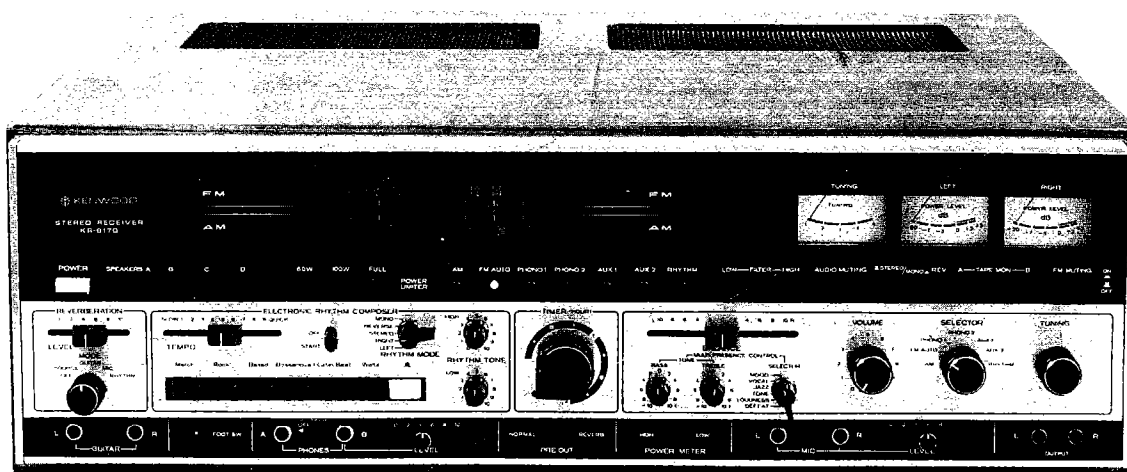




KENWOOD
HI/FI STEREO COMPONENTS

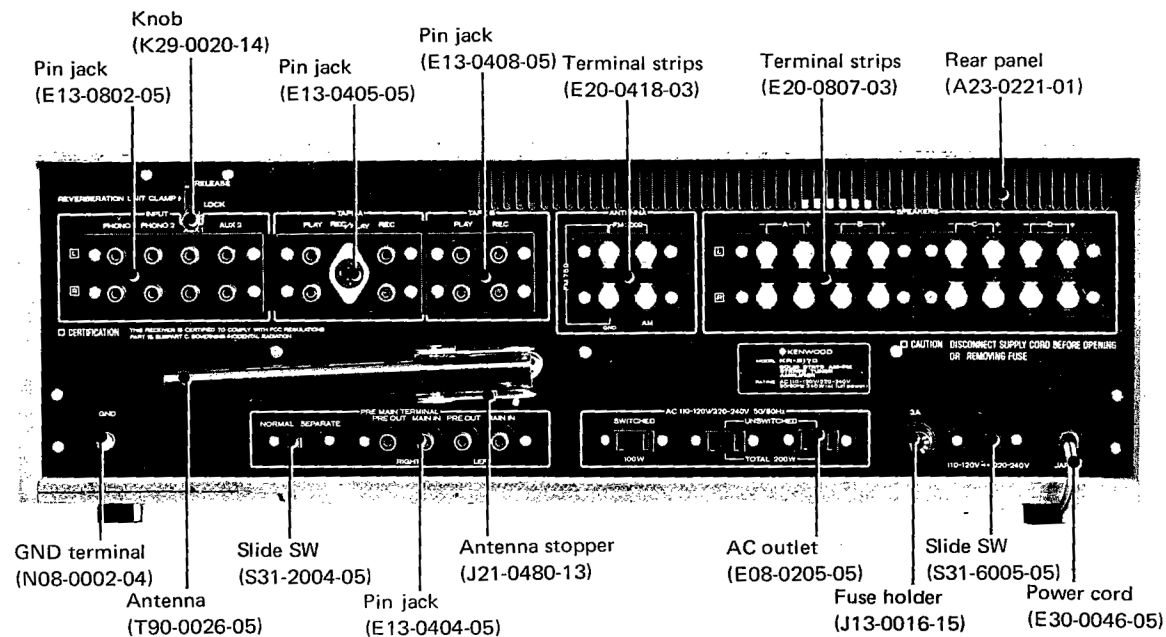
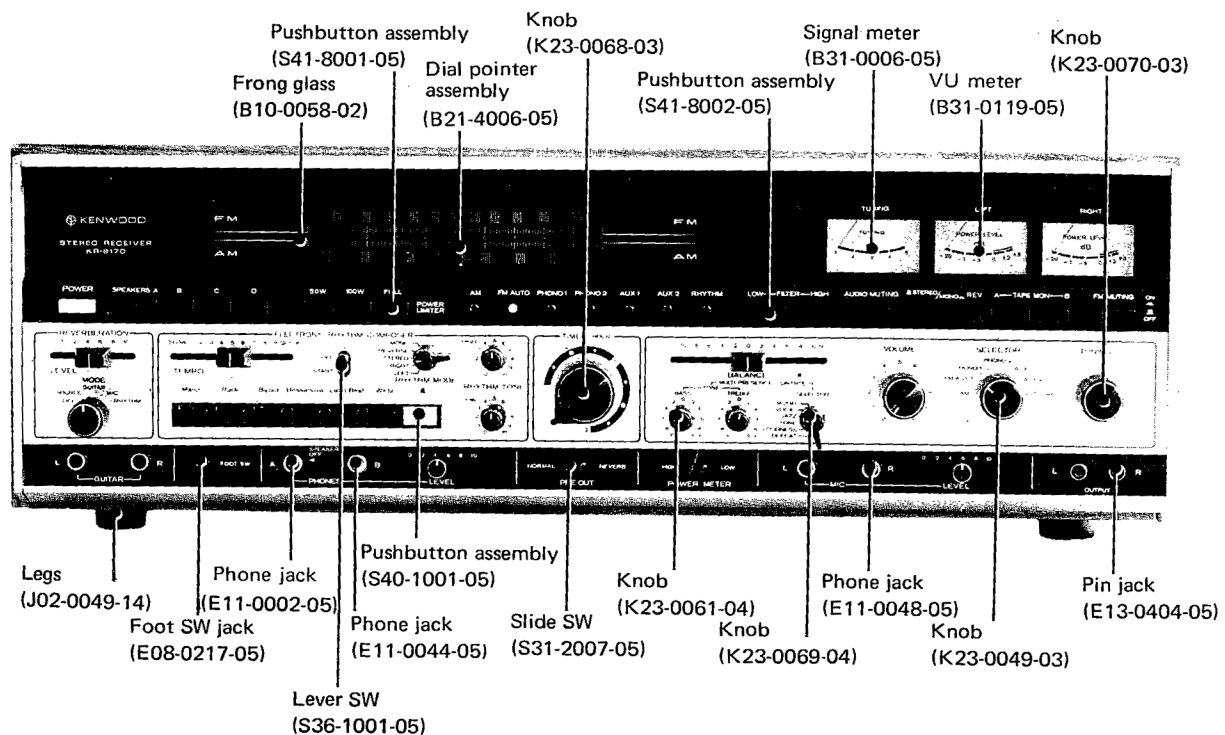
SERVICE MANUAL

KR-6170

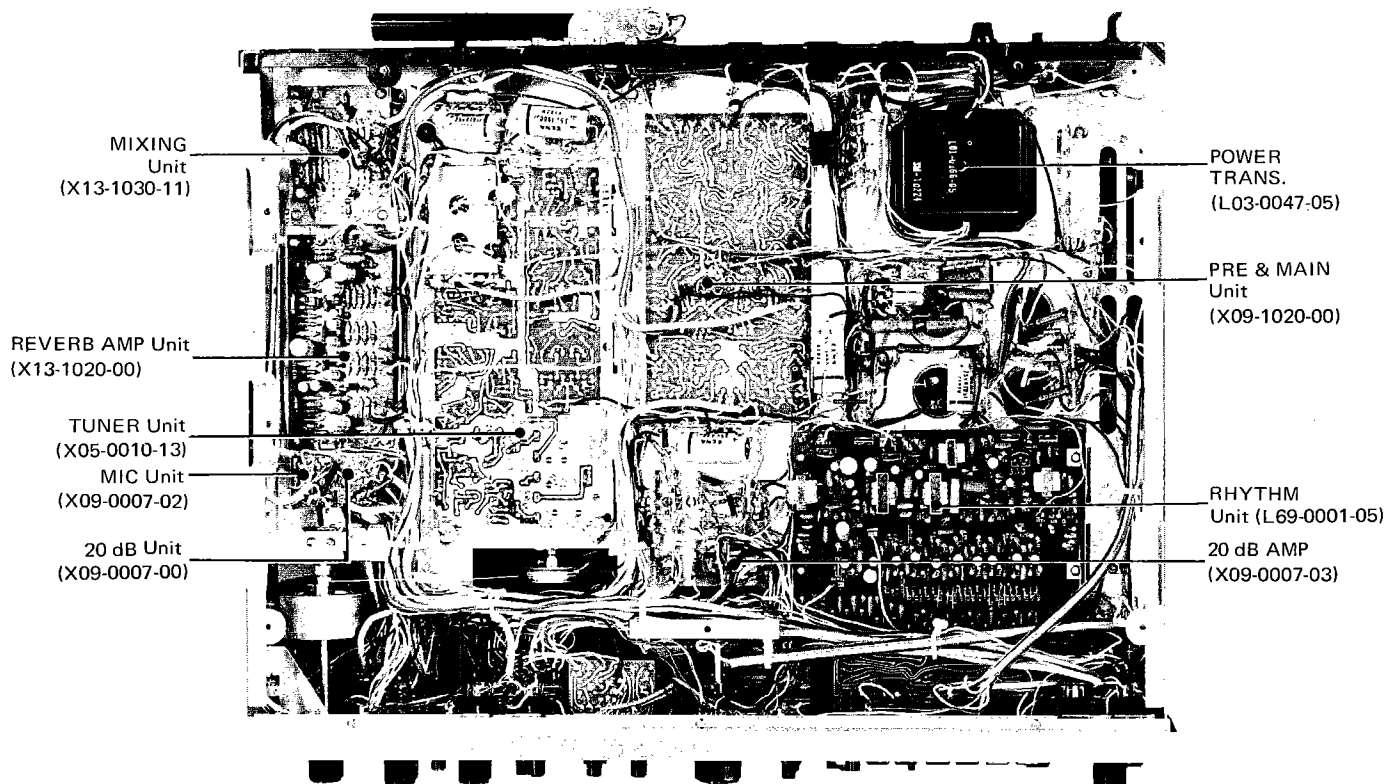
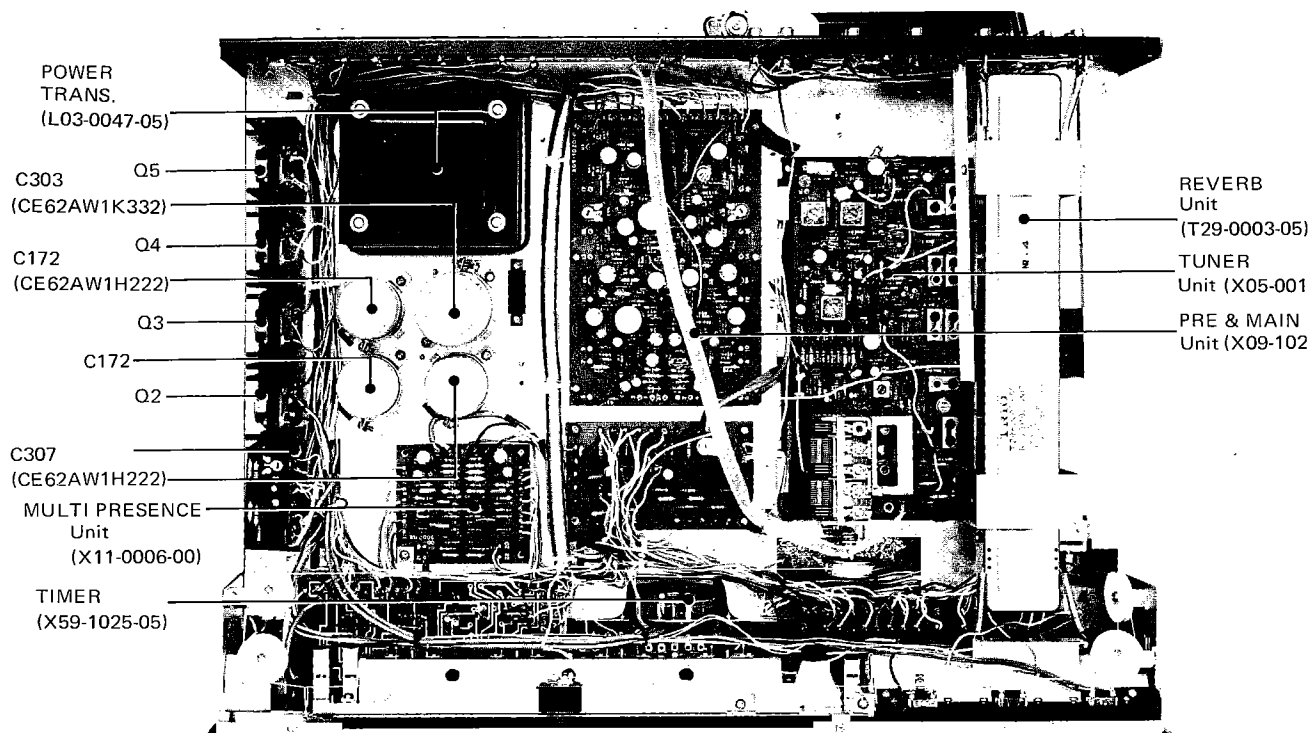


**SOLID STATE AM-FM STEREO RECEIVER
WITH ELECTRONIC RHYTHM COMPOSER**

● EXTERNAL VIEW



● TOP & BOTTOM CHASSIS VIEW



● ADJUSTMENT

■ FM-RF/IF ADJUSTMENT

STEP	ALIG.	FM SSG/SWEEP G.		TUNING DIAL SETTING	VTVM or SCOPE COUPLING	ADJUST	CHECK
		COUPLING	SIGNAL				
1	IF trans.	*FM antenna terminal or TEST POINT (A)	10.7MHz (Unmod.)	Any non-interfering setting	SCOPE to the TEST POINT (B)	(X05-0010-13) Ta3, 5 Prim. & Sec.	Maximum amplitude and symmetry with 10.7MHz marker centered on the response.
2	IF trans.	*FM antenna terminal or TEST POINT (A)	10.7MHz (Unmod.)	Any non-interfering setting	SCOPE to the TEST POINT (C)	(X05-0010-13) Ta6 Prim. & Sec.	Maximum amplitude and symmetry with 10.7MHz marker centered on the response.
Check the MUTING SW to the OFF and emitter voltage of transistor Qa6 to be more 1.9V. If voltage does not appear disconnect the wire of "C" terminal in X05-0010-13. And then connect the resistor 560Ω to the capacitor Ca38 in parallel.							
3	IF trans.	*FM antenna terminal or TEST POINT (A)	10.7MHz (Unmod.)	Any non-interfering setting	SCOPE to the TEST POINT (D)	(X05-0010-13) Ta7 Prim. & Sec.	Maximum amplitude and symmetry with 10.7MHz marker centered on the response
4	DISCRIMINATOR	*FM antenna terminal or TEST POINT (A)	98MHz 400Hz (Mod.) 75kHz (Dev.) 0.5~1mV	Tune for maximum using tuning indicator	SCOPE to the recording jack	(X05-0010-13) Ta8 Prim. & Sec.	S-response and its symmetry on each side of 10.7MHz center frequency.
5	RF	FM antenna terminal	90MHz 400Hz (Mod.) 75kHz (Dev.) 1.5~2μV	90MHz	VTVM to the recording jack	(X05-0010-13) Ta4	Turn it to receive the SSG freq.
6	RF	FM antenna terminal	90MHz 400Hz (Mod.) 75kHz (Dev.) 1.5~2μV	90MHz	VTVM to the recording jack	(X05-0010-13) Ta1, 2	Adjust the sensitivity to be maximum.
7	RF	FM antenna terminal	106MHz 400Hz (Mod.) 75kHz (Dev.) 1.5~2μV	106MHz	VTVM to the recording jack	(X05-0010-13) CTa3	Turn it to receive the SSG freq.
8	RF	FM antenna terminal	106MHz 400Hz (Mod.) 75kHz (Dev.) 1.5~2μV	106MHz	VTVM to the recording jack	(X05-0010-13) CTa1, 2	Adjust sensitivity to the maximum
9	Repeat steps 5 ~ 8 until no further improvement is possible.						
10	METER	FM antenna terminal	98MHz 400Hz (Mod.) 75kHz (Dev.) 1mV	Tune for maximum using tuning indicator	—	(X05-0010-13) VRa1	"4" indicates
11	OUT	FM antenna terminal	98MHz 400Hz (Mod.) 75kHz (Dev.) 1mV	Tune for maximum using tuning indicator	VTVM to the recording jack	(X05-0010-13) VRa2	Adjust the output to be 1V
* If can't see the waveform on the scope, move the sweep generator to the TEST POINT (A). A across the antenna terminal in series with a capacitor 5 ~ 10pF.							

● ADJUSTMENT

■ SCA FILTER ADJUSTMENT

STEP	AUDIO SIGNAL GENERATOR COUPLING	AUDIO SIGNAL GENERATOR FREQ.	AC VTVM & SCOPE COUPLING	ADJUST	CHECK
1	TEST POINT (E)	67kHz 1V	TEST POINT (F)	(X05-0010-13) Ta15	Minimum deflection

■ MPX ADJUSTMENT

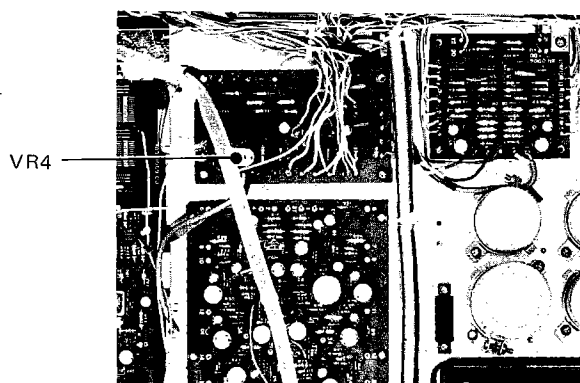
STEP	COUPLING	FM SSG MOD. FREQ.	SELECTOR	19kHz PILOT	VTVM & SCOPE COUPLING	ADJUST	CHECK
1	FM antenna terminal	98MHz 400Hz (Mod.) 67.5kHz (Dev.) 1mV	NORMAL or REVERSE	ON	OFF	(X05-0010-13) VRa4, VRa5	"STEREO" indicator illuminate
2	FM antenna terminal	98MHz 400Hz (Mod.) 67.5kHz (Dev.) 1mV	REVERSE	ON	Recording jack	(X05-0010-13) Ta13, Ta14	With Ta13 increase the output to be max. and with Ta14 make the best waveform.
3	FM antenna terminal	98MHz 400Hz (Mod.) 40kHz (Dev.)	NORMAL	ON	Recording jack	(X05-0010-13) VRa5	Adjust the variable resistor until the indicator goes out and bring them back to the point where they are turned on again.
4	FM antenna terminal	98MHz 400Hz (Mod.) 67.5kHz (Dev.) 10μV	NORMAL	ON	Recording jack	(X05-0010-13) VRa4	
5	FM antenna terminal	98MHz 400Hz (Mod.) 67.5kHz (Dev.) 1mV	LEFT	ON	Recording jack of RIGHT	(X09-1020-00) VRe3	Minimum RIGHT output.
6	FM antenna terminal	98MHz 400Hz (Mod.) 67.5kHz (Dev.) 1mV	RIGHT	ON	Recording jack of LEFT	(X09-1020-00) VRe3	Minimum LEFT output.

* As can't get the same value, set the variable resistor to the point taking the average.

■ MUTING ADJUSTMENT

Coupling the SSG to the antenna terminal, setting MUTING SW to be OFF, and VTVM to recording jack. As supply the signal (98MHz, modulation at 400Hz, deviation of 75kHz, input 1mV) to the set VTVM indicates 1V. Next set the MUTING SW to ON and adjust the variable resistor VR4 (50kΩ) so that VTVM indicates 0.5 ~ 0.7V.

More check whether AM broadcast is received or not. If not, check whether base voltage of transistor Q1 is supplied more 0.6V or not.



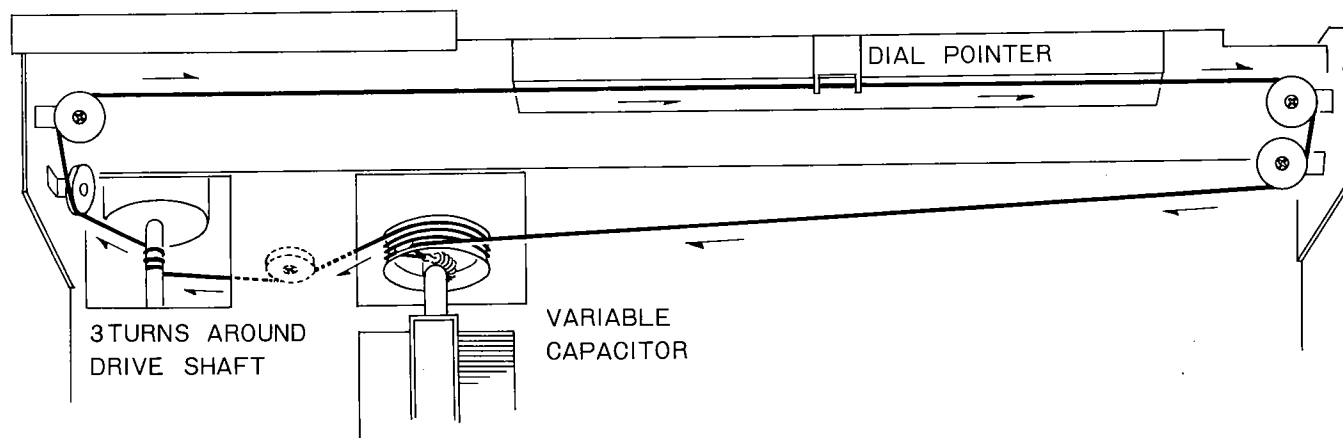
TOP CHASSIS VIEW

● ADJUSTMENT

■ AM ADJUSTMENT

STEP	ALIG	SSG		TUNING DIAL SETTING	VTVM & OSC COUPLING	ADJUST	CHECK
		COUPLING	SIGNAL				
1	IF Trans.	AM antenna terminal	455kHz	Any non-interfering	Recording jack	X05-0010-13 Ta10	Maximum amplitude and symmetry with 455kHz marker centered on response
2	IF Trans.	AM antenna terminal	455kHz	Any non-interfering	Recording jack	X05-0010-13 Ta11	Maximum amplitude and symmetry with 455kHz marker centered on response
3	IF Trans.	AM antenna terminal	455kHz	Any non-interfering	Recording jack	X05-0010-13 Ta12	Maximum amplitude and symmetry with 455kHz marker centered on response
4	RF	AM antenna terminal	600kHz 400Hz (30% Mod.) 1mV	600kHz	Recording jack	X05-0010-13 Ta9, Loopstick antenna	With Ta9 correspond to SSG freq. With Loopstick antenna the sensitivity to be maximum.
5	RF	AM antenna terminal	1,400kHz 400Hz (30% Mod.)	1,400kHz	Recording jack	X05-0010-13 CTa4	With CTa4 correspond to SSG freq.
* Repeat steps 4, 5 until no further improvement is possible.							
6	METER	AM antenna terminal	1000kHz 400Hz (30% Mod.)	1000kHz	Recording jack	X05-0010-13 VRa3	"4" indicates

■ DIAL CORD STRINGING



ADJUSTMENT

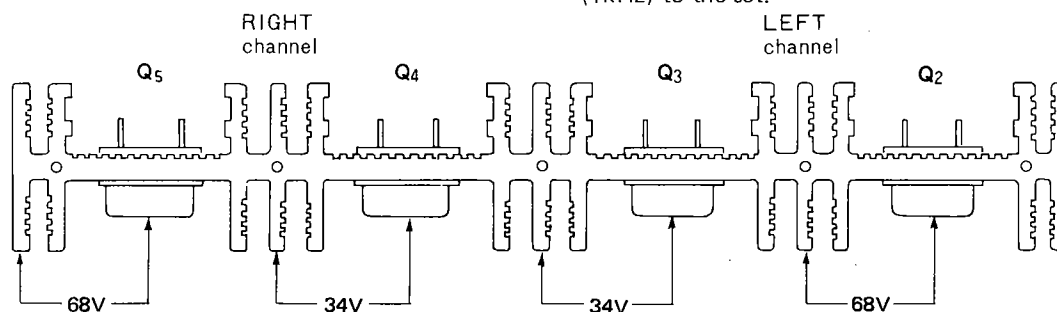
■ TESTING PROCEDURES

Perform the test according to the following procedures.

1. Using a tester, measure the voltage between the chassis and collector of the power transistor Q2 or Q5. If a tester indicates approximately 68V, it is normal.
2. Also measure the voltage between the chassis and collector of the power transistor Q3 or Q4. If a tester indicates approximately 34V, it is normal.

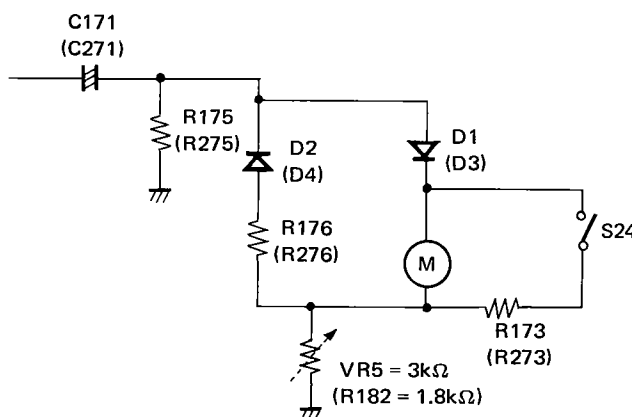
■ IDLING CURRENT

1. Connect the dummy load (8Ω , 80 watts) to the output terminal.
2. Connect the audio generator to the main unit. Oscilloscope and AC VTVM are connected across the dummy.
3. Before checking the idling current, turn on power switch in a few minutes, adjust the variable resistor (VR1, 2) so that tester (or DC VTVM) coupling to the collector of transistors indicates 30mA. And also check the waveform to be correct feeding the signal (1kHz) to the set.



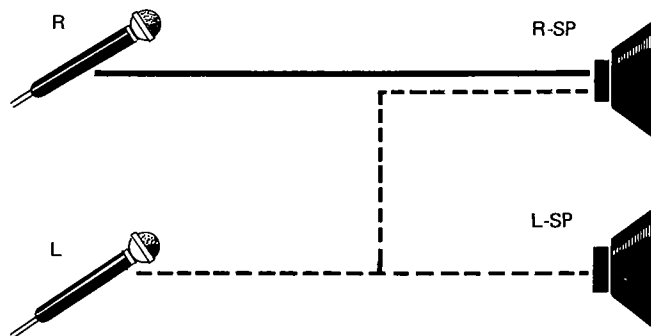
■ ON METER SETTING

As supply the signal (1kHz, 100mV) to the MAIN-IN jack, setting POWER LIMITER at FULL, PRE-MAIN SEPARATE SW at SEPARATE, right meter indicates around the 0VU. And then adjust the PC trimmer potentiometer VR5 ($3k\Omega$) so that left meter indicates the 0VU as well as right.



■ ON MIC JACK

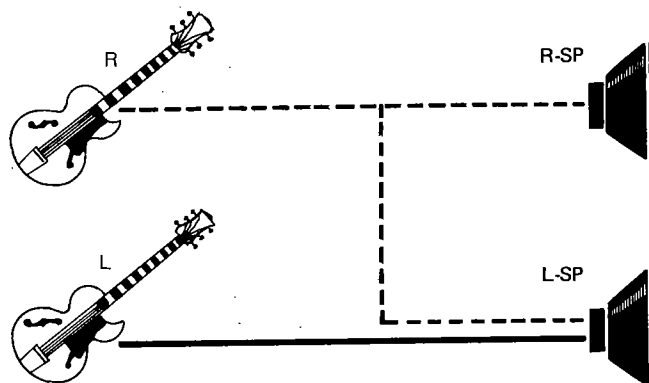
As plug the MIC jack in MIC-L speakers work as monophonic. And then the MIC jack in MIC-R only right speaker does. Next plug MIC jacks in MIC-R and MIC-L each speakers work as stereophonic.



● ADJUSTMENT

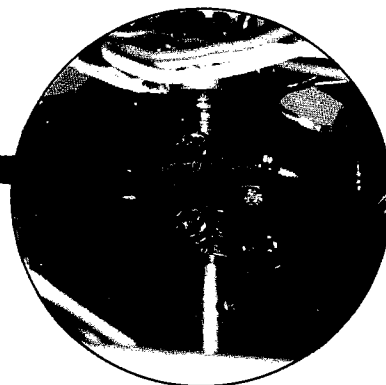
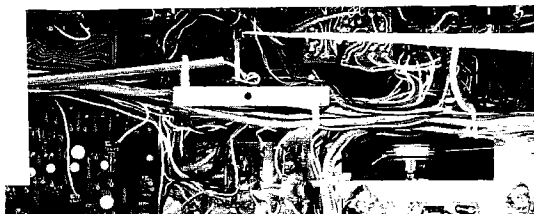
■ ON GUITAR JACK

As plug the GUITAR jack in GUITAR-R speakers work as monophonic. And then the GUITAR jack in GUITAR-L only left speaker does. Next plug GUITAR-jacks in GUITAR-R and GUITAR-L each speakers work as stereophonic.



■ ON TIMER

The time lag is often caused by the bend and aberration of TIMER shaft. Check whether the shaft is the proper connection or not.



■ RELATION OF SPEAKERS SELECTOR AND SPEAKERS

See the right table. It is the table that the relation of speaker connection and speaker selector. For example, push the selector button B or A & B, connecting the speakers to A terminal, they don't work. And also push the button A or A & B, connecting the speakers to B terminal, they don't.

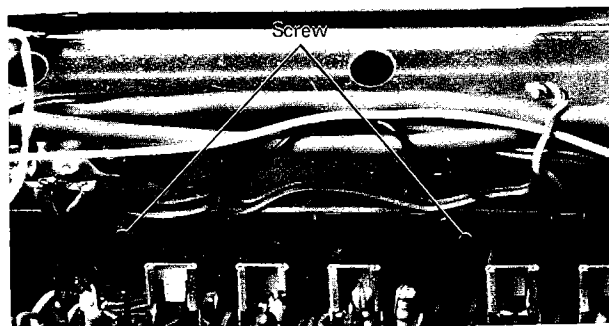
SP Selector	A (C)	B (D)	A & B (C & D)
A (C)	♪	⌘	♪
B (D)	⌘	♪	♪
A & B (C & D)	⌘	⌘	♪

♪ speakers to work

⌘ speakers not to work

■ HOW TO REPLACE THE PC BOARD

Pc boards are stopped by screws. As replace them loose screws.



● SPECIFICATIONS

FM TUNER SECTION:

ANTENNA IMPEDANCE: 300 ohms balanced & 75 ohms unbalanced.

USABLE SENSITIVITY (IHF): 1.9 μ V

HARMONIC DISTORTION MONO: 0.5%

(at 400Hz 100% Mod.) STEREO: 0.8%

SIGNAL TO NOISE RATIO: 60 dB

CAPTURE RATIO (IHF): 4.0 dB

SELECTIVITY (ALT. CH.) (IHF): 45 dB

IMAGE REJECTION: 60 dB

IF REJECTION: 100 dB

AM SUPPRESSION: 45 dB

STEREO SEPARATION (at 1 kHz): 30 dB

(at 10 kHz): 20 dB

SUB CARRIER SUPPRESSION: 40 dB

STEREO AUTO-SWITCHING LEVEL: 10 μ V

FRONT END: 1-FET, 3-Gang

IF-STAGE: 1-IC

AM TUNER SECTION:

ANTENNA: Built-in ferrite bar antenna & External antenna terminals

USABLE SENSITIVITY (IHF): 25 μ V

SELECTIVITY (IHF): 25 dB

IMAGE REJECTION: 45 dB

IF REJECTION: 35 dB

FRONT END: 2-Gang

AMPLIFIER SECTION:

POWER OUTPUT:

both ch. at 4 ohms: 180 watts

both ch. at 8 ohms: 130 watts

DYNAMIC POWER OUTPUT:

both ch. at 4 ohms: 150 watts

both ch. at 8 ohms: 110 watts

CONTINUOUS POWER OUTPUT:

each ch. at 4 ohms: 50/50 watts

each ch. at 8 ohms: 40/40 watts

both ch. at 4 ohms: 39/39 watts

both ch. at 8 ohms: 33/33 watts

HARMONIC DISTORTION (at rated): 0.5%

(at -3 dB rated): 0.1%

INTERMODULATION DISTORTION:

(at rated): 0.5%

(at -3 dB rated): 0.2%

FREQUENCY RESPONSE:

HIGH LEVEL (AUX) INPUT: 20 ~ 40,000 Hz $\pm$ 1.5 dB

POWER BANDWIDTH (IHF): 17 ~ 30,000 Hz

HUM & NOISE:

PHONO 1, 2: 65 dB

MIC: 58 dB

AUX/TAPE PLAY: 75 dB

INPUT SENSITIVITY (for rated output):

PHONO 1: 2.5 mV 50 K ohms

PHONO 2: 2.5 mV 50 K ohms

MIC: 2.0 mV 10 K ohms

GUITAR: 20 mV 30 K ohms

AUX 1: 180 mV 50 K ohms

AUX 2: 180 mV 50 K ohms

TAPE PLAY A: 180 mV 50 K ohms

TAPE PLAY B: 180 mV 50 K ohms

MAIN INPUT: 100 mV

DAMPING FACTOR (at 8 ohms): 50

SPEAKER IMPEDANCE: accept 4 to 16 ohms

MULTI PRESENCE CONTROL

SELECTOR:

DEFEAT, LOUDNESS at 100 Hz: +10 dB

TONE, JAZZ, VOCAL, MOOD

BASS CONTROL (at 100 Hz): $\pm$ 10 dB

TREBLE CONTROL (at 10,000 Hz): $\pm$ 10 dB

ELECTRONIC RHYTHM COMPOSER SECTION:

RHYTHM SELECTOR:

(1) March, (2) Fox Trot, (3) Rock, (4) R & B, (5) Ballad,

(6) Shuffle, (7) Bossanova 1, (8) Bossanova 2, (9) Latin

Beat (10) Mambo, (11) Waltz, (12) Jazz Waltz.

ELECTRONIC PERCUSSIONS: 5 different Sounds

RHYTHM MODE SWITCH: Left, Right, Stereo, Reverse, Mono

FOOT SWITCH JACK: Yes.

ACCESSORY PARTS: Foot Switch (Remote Control Switch of START and BREAK for E, R, C.)

REVERBERATION SECTION:

LEVEL CONTROL: 0 to 2 seconds

MODE: OFF—SOURCE—GUITAR—MIC—RHYTHM

TIMER SECTION:

2 hours

GENERAL:

SWITCHES: SPEAKERS: A, B, C, D.

SELECTOR: AM, FM AUTO, PHONO 1, PHONO 2, AUX 1, AUX 2, RHYTHM.

POWER LIMITER: 50 watts, 100 watts, Full Power.

MODE SWITCHES: STEREO-MONO, NORMAL-REVERSE

TAPE MONITOR A: SOURCE, PLAY

TAPE MONITOR B: SOURCE, PLAY

AUDIO MUTING: ON (-20 dB), OFF

FM MUTING: ON, OFF

LOW FILTER: ON, OFF

HIGH FILTER: ON, OFF

POWER METER: LOW, HIGH

PRE OUT: NORMAL, REVERB (Front)

PRE OUT-MAIN IN: NORMAL, SEPARATE (Rear)

(for Separate Use of Pre and Main Amplifier)

OTHERS: B PHONES LEVEL

MIC LEVEL

GUITAR JACK (L, R)

MIC JACK (L, R)

PHONES JACK (A, B)

OUTPUT TERMINALS (Front)

PRE OUT — MAIN IN TERMINALS (Rear)

AC OUTLETS: SWITCHED 1

UNSWITCHED 2

POWER CONSUMPTION:

at full power: 240 watts

at no signal: 45 watts

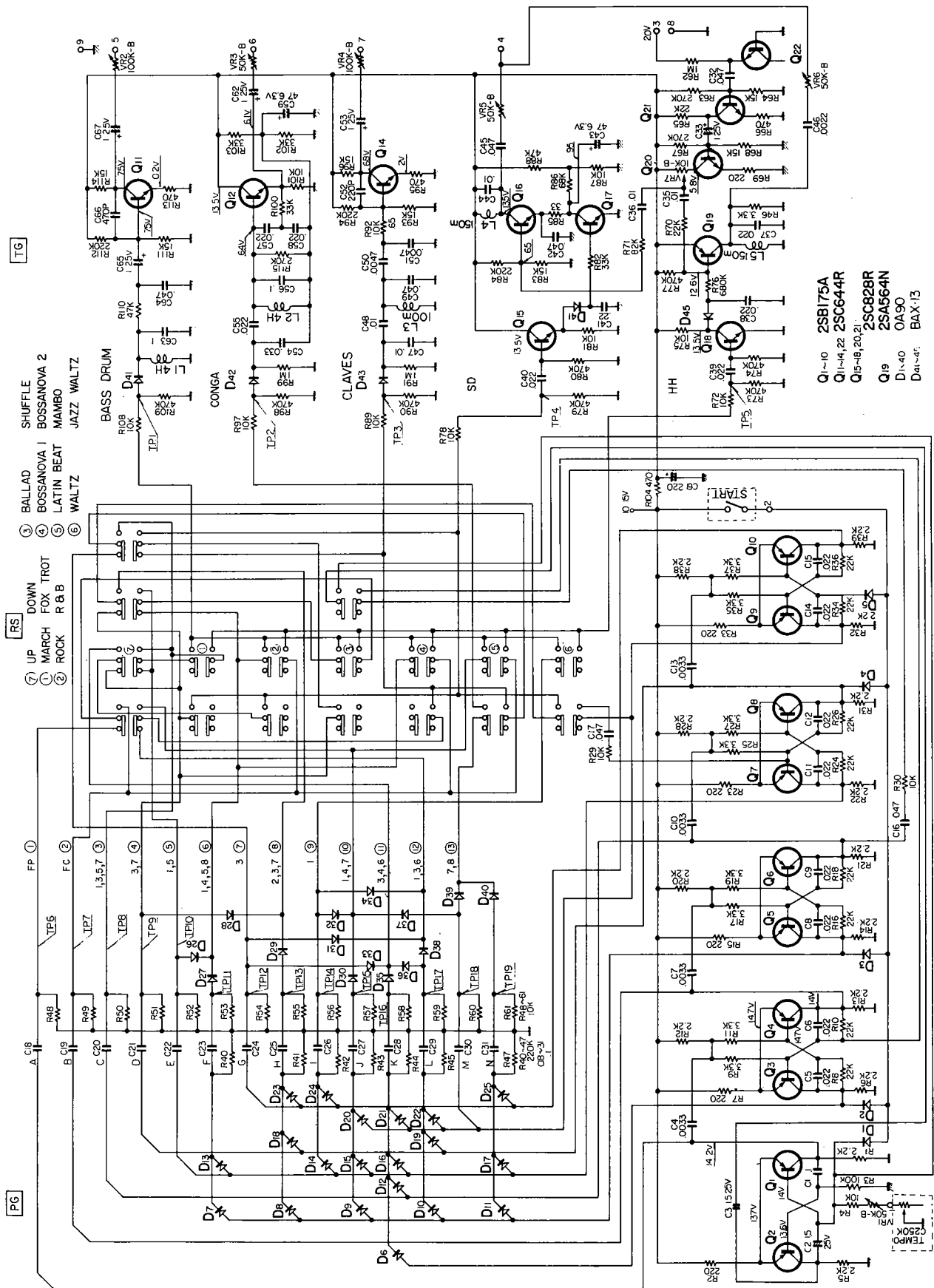
DIMENSIONS: W 21-3/4" x H 6-3/4" x D 16-1/4"

WEIGHT: 29 lbs (16 kg)

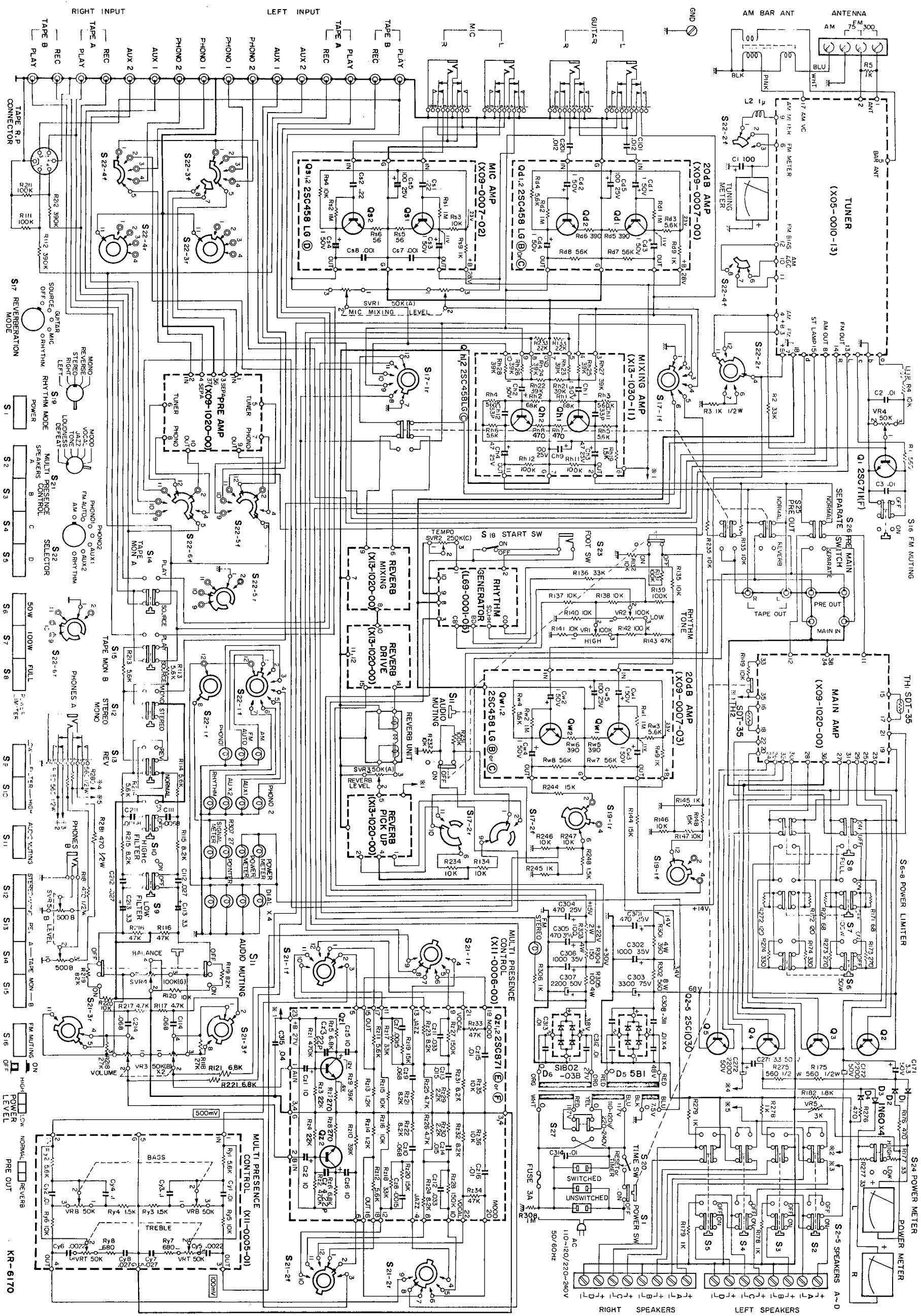
ACCESSORY PARTS: Dynamic MIC

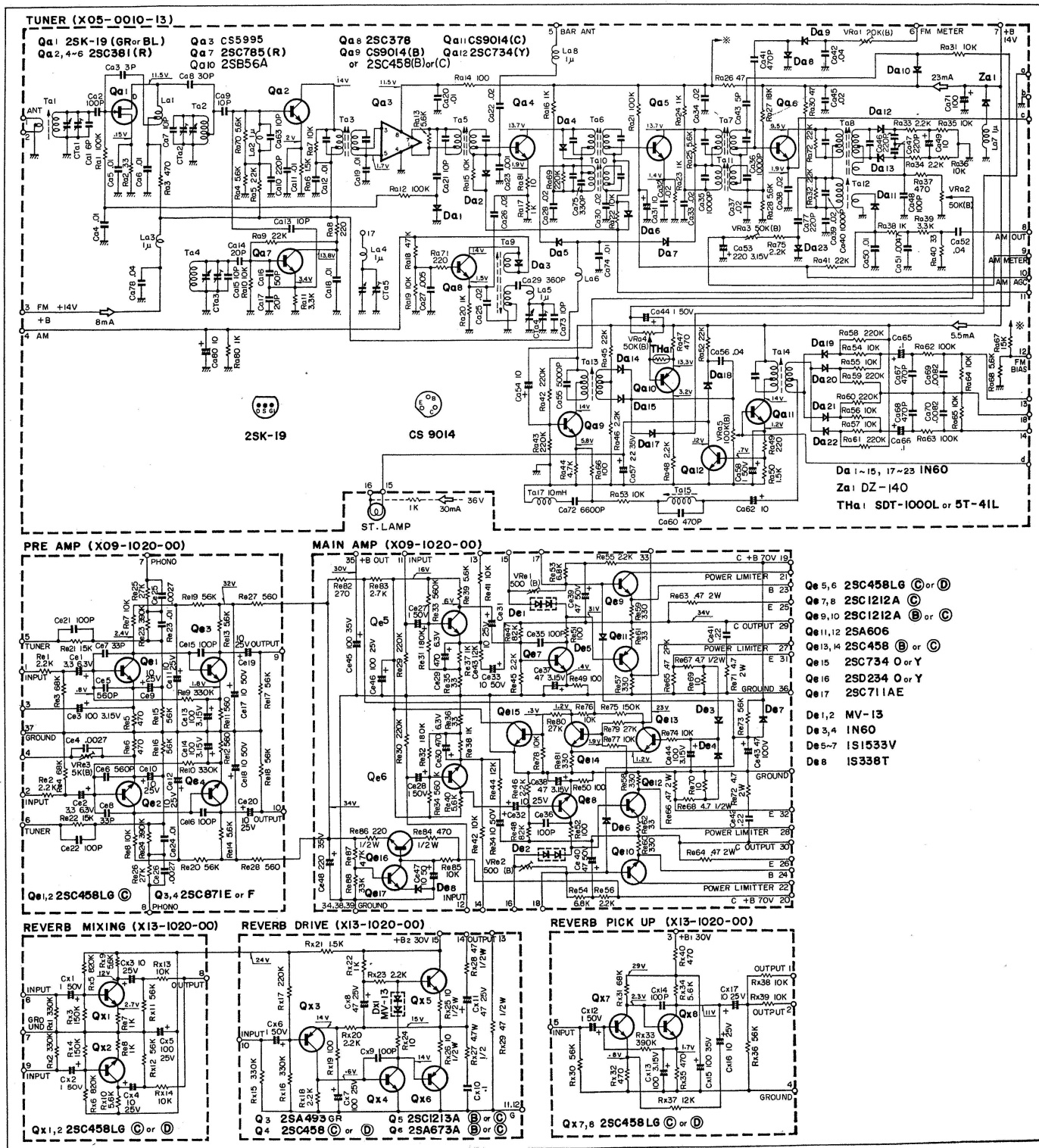
WALNUT CABINET: Yes

● RHYTHM SCHEMATIC DIAGRAM



SCHEMATIC DIAGRAM





● PARTS LIST

Circuit No.	Parts No.	Description			Remarks	
UNIT						
—	X05-0010-13	TUNER unit				
—	X09-0007-00	GUITAR AMP unit				
—	X09-0007-02	MIC AMP unit				
—	X09-0007-03	RHYTHM AMP unit				
—	X09-1020-00	PRE & MAIN unit				
—	X11-0005-01	MULTI PRESENCE unit				
—	X11-0006-00	MULTI PRESENCE unit				
—	X13-1020-00	REVERB AMP unit				
—	X13-1030-11	MIXING AMP unit				
—	L69-0001-05	RHYTHM GENERATOR unit				
CAPACITOR						
C1	CE04W0F101	PC electrolytic	100μF	3.15WV		
C2, 3	CK94YY1H103M	Ceramic	0.01μF	±20%		
C101	CQ92M1H123M	Mylar	0.012μF	±20%		
C111	CQ92M1H682M	Mylar	0.0068μF	±20%		
C112	CQ92M1H273M	Mylar	0.027μF	±20%		
C113	CE04W1H3R3	PC electrolytic	3.3μF	50WV		
C114	CQ92M1H683M	Mylar	0.068μF	±20%		
C171	CE04W1H3R3	PC electrolytic	3.3μF	50WV		
C172	CE62AW1H222	Electrolytic block	2200μF	50WV		
C201	CQ92M1H123M	Mylar	0.012μF	±20%		
C211	CQ92M1H682M	Mylar	0.0068μF	±20%		
C212	CQ92M1H273M	Mylar	0.027μF	±20%		
C213	CE04W1H3R3	PC electrolytic	3.3μF	50WV		
C214	CQ92M1H683M	Mylar	0.068μF	±20%		
C271	CE04W1H3R3	PC electrolytic	3.3μF	50WV		
C272	CE62AW1H222	Electrolytic block	2200μF	50WV		
C301	CE02W1E471	Electrolytic tubular	470μF	25WV		
C302	CE02W1V102	Electrolytic tubular	1000μF	35WV		
C303	CE62AW1K332	Electrolytic block	3300μF	75WV		
C304	CE02W1E471	Electrolytic tubular	470μF	25WV		
C305	CE02W1V471	Electrolytic tubular	470μF	35WV		
C306	CE02W1V102	Electrolytic tubular	1000μF	35WV		
C307	CE62AW1H222	Electrolytic block	2200μF	50WV		
C308~313	CP02B2J103M	Oil filled	0.01μF	±20%		
C314	C90-0036-05	Oil filled (UL, CSA)	0.01μF	±20%		
C315	CK94YX1H403M	Ceramic	0.04μF	±20%		
RESISTOR						
R1	PD14BY2E561J	Insulated carbon film	560Ω	±5%	1/4W	
R2	PD14BY2E333J	Insulated carbon film	33kΩ	±5%	1/4W	
R3	RC05GF2H102K	Carbon composition	1kΩ	±10%	1/2W	
R4	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R5	PD14BY2E102J	Insulated carbon film	1kΩ	±5%	1/4W	
R111	PD14BY2E104J	Insulated carbon film	100kΩ	±5%	1/4W	
R112	PD14BY2E394J	Insulated carbon film	390kΩ	±5%	1/4W	
R113, 114	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
R115	PD14BY2E822J	Insulated carbon film	8.2kΩ	±5%	1/4W	
R116	PD14BY2E473J	Insulated carbon film	47kΩ	±5%	1/4W	
R117	PD14BY2E472J	Insulated carbon film	4.7kΩ	±5%	1/4W	
R118	PD14BY2E273J	Insulated carbon film	27kΩ	±5%	1/4W	
R119	PD14BY2E823J	Insulated carbon film	82kΩ	±5%	1/4W	
R120	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R121	PD14BY2E682J	Insulated carbon film	6.8kΩ	±5%	1/4W	
R131	PD14BY2E104J	Insulated carbon film	100kΩ	±5%	1/4W	

● PARTS LIST

Circuit No.	Parts No.	Description	Remarks
R132	PD14BY2E103J	Insulated carbon film 10k Ω $\pm$ 5% 1/4W	
R133	PD14BY2E223J	Insulated carbon film 22k Ω $\pm$ 5% 1/4W	
R134, 135	PD14BY2E103J	Insulated carbon film 10k Ω $\pm$ 5% 1/4W	
R136	PD14BY2E333J	Insulated carbon film 33k Ω $\pm$ 5% 1/4W	
R137, 138	PD14BY2E103J	Insulated carbon film 10k Ω $\pm$ 5% 1/4W	
R139	PD14BY2E104J	Insulated carbon film 100k Ω $\pm$ 5% 1/4W	
R140, 141	PD14BY2E103J	Insulated carbon film 10k Ω $\pm$ 5% 1/4W	
R142	PD14BY2E104J	Insulated carbon film 100k Ω $\pm$ 5% 1/4W	
R143	PD14BY2E473J	Insulated carbon film 47k Ω $\pm$ 5% 1/4W	
R144	PD14BY2E153J	Insulated carbon film 15k Ω $\pm$ 5% 1/4W	
R145	PD14BY2E102J	Insulated carbon film 1k Ω $\pm$ 5% 1/4W	
R146, 147	PD14BY2E103J	Insulated carbon film 10k Ω $\pm$ 5% 1/4W	
R148	PD14BY2E152J	Insulated carbon film 1.5k Ω $\pm$ 5% 1/4W	
R149	PD14BY2E103J	Insulated carbon film 10k Ω $\pm$ 5% 1/4W	
R171	PD14BY2E680J	Insulated carbon film 68 Ω $\pm$ 5% 1/4W	
R172	PD14BY2E121J	Insulated carbon film 120 Ω $\pm$ 5% 1/4W	
R173	PD14BY2E271J	Insulated carbon film 270 Ω $\pm$ 5% 1/4W	
R174	PD14BY2E331J	Insulated carbon film 330 Ω $\pm$ 5% 1/4W	
R175	RC05GF2H561J	Carbon composition 560 Ω $\pm$ 5% 1/4W	
R176	PD14BY2E471J	Insulated carbon film 470 Ω $\pm$ 5% 1/4W	
R177	PD14BY2E330J	Insulated carbon film 33 Ω $\pm$ 5% 1/4W	
R178, 179	RC05GF2H102K	Carbon composition 1k Ω $\pm$ 10% 1/2W	
R180	RC05GF2H561J	Carbon composition 560 Ω $\pm$ 5% 1/2W	
R181	RC05GF2H471J	Carbon composition 470 Ω $\pm$ 5% 1/2W	
R182	PD14BY2E182J	Insulated carbon film 1.8k Ω $\pm$ 5% 1/4W	
R211	PD14BY2E104J	Insulated carbon film 100k Ω $\pm$ 5% 1/4W	
R212	PD14BY2E394J	Insulated carbon film 390k Ω $\pm$ 5% 1/4W	
R213, 214	PD14BY2E562J	Insulated carbon film 5.6k Ω $\pm$ 5% 1/4W	
R215	PD14BY2E822J	Insulated carbon film 8.2k Ω $\pm$ 5% 1/4W	
R216	PD14BY2E473J	Insulated carbon film 47k Ω $\pm$ 5% 1/4W	
R217	PD14BY2E472J	Insulated carbon film 4.7k Ω $\pm$ 5% 1/4W	
R218	PD14BY2E273J	Insulated carbon film 27k Ω $\pm$ 5% 1/4W	
R219	PD14BY2E823J	Insulated carbon film 82k Ω $\pm$ 5% 1/4W	
R220	PD14BY2E103J	Insulated carbon film 10k Ω $\pm$ 5% 1/4W	
R221	PD14BY2E682J	Insulated carbon film 6.8k Ω $\pm$ 5% 1/4W	
R231	PD14BY2E104J	Insulated carbon film 100k Ω $\pm$ 5% 1/4W	
R232	PD14BY2E103J	Insulated carbon film 10k Ω $\pm$ 5% 1/4W	
R233	PD14BY2E223J	Insulated carbon film 22k Ω $\pm$ 5% 1/4W	
R234, 235	PD14BY2E103J	Insulated carbon film 10k Ω $\pm$ 5% 1/4W	
R244	PD14BY2E153J	Insulated carbon film 15k Ω $\pm$ 5% 1/4W	
R245	PD14BY2E102J	Insulated carbon film 1k Ω $\pm$ 5% 1/4W	
R246, 247	PD14BY2E103J	Insulated carbon film 10k Ω $\pm$ 5% 1/4W	
R248	PD14BY2E152J	Insulated carbon film 1.5k Ω $\pm$ 5% 1/4W	
R271	PD14BY2E680J	Insulated carbon film 68 Ω $\pm$ 5% 1/4W	
R272	PD14BY2E121J	Insulated carbon film 120 Ω $\pm$ 5% 1/4W	
R273	PD14BY2E271J	Insulated carbon film 270 Ω $\pm$ 5% 1/4W	
R274	PD14BY2E331J	Insulated carbon film 330 Ω $\pm$ 5% 1/4W	
R275	RC05GF2H561J	Carbon composition 560 Ω $\pm$ 5% 1/2W	
R276	PD14BY2E471J	Insulated carbon film 470 Ω $\pm$ 5% 1/4W	
R277	PD14BY2E331J	Insulated carbon film 330 Ω $\pm$ 5% 1/4W	
R278, 279	RC05GF2H102K	Carbon composition 1k Ω $\pm$ 10% 1/2W	
R280	RC05GF2H561J	Carbon composition 560 Ω $\pm$ 5% 1/2W	
R281	RC05GF2H471J	Carbon composition 470 Ω $\pm$ 5% 1/2W	
R301	RW14AG3G391J	Wire wound 390 Ω $\pm$ 5% 4W	
R302	RW14AG3K561J	Wire wound 560 Ω $\pm$ 5% 8W	
R303	RW14AG3D101J	Wire wound 100 Ω $\pm$ 5% 2W	

● PARTS LIST

Circuit No.	Parts No.	Description	Remarks
R304	RW14AG3G151J	Wire wound 150Ω ±5% 4W	
R305	RW14AG3G101J	Wire wound 100Ω ±5% 4W	
R306	RW14AG3D101J	Wire wound 100Ω ±5% 2W	
R307	RC05GF2H270K	Carbon composition 27Ω ±5% 1/2W	
R308	RC05GF2H105K	Carbon composition 1MΩ ±10% 1/2W	
POTENTIOMETER			
VR1	R01-5006-05	HIGH RHYTHM TONE 100kΩ (B)	
VR2	R01-5006-05	LOW RHYTHM TONE 100kΩ (B)	
VR3	R01-4004-05	VOLUME 50kΩ (B) dual	
VR4	R12-4015-05	PC trimmer potentiometer 50kΩ	
VR5	R12-1016-05	PC trimmer potentiometer 3kΩ	
SVR1	R13-4008-05	MIXING LEVEL 50kΩ (A) slide 2-gang	
SVR2	R13-6002-05	TEMPO 250kΩ (C) slide	
SVR3	R13-4007-05	REVERB LEVEL 50kΩ (A) slide	
SVR4	R13-5001-05	BALANCE 100kΩ (G) slide	
SVR5	R13-0001-05	PHONES LEVEL 500Ω (B) slide 2-gang	
SWITCH			
S1	S41-8001-05	POWER (eight-pushbutton A)	
S2	S41-8001-05	SPEAKERS A (eight-pushbutton A)	
S3	S41-8001-05	SPEAKERS B (eight-pushbutton A)	
S4	S41-8001-05	SPEAKERS C (eight-pushbutton A)	
S5	S41-8001-05	SPEAKERS D (eight-pushbutton A)	
S6	S41-8001-05	50W POWER LIMITER (eight-pushbutton A)	
S7	S41-8001-05	100W POWER LIMITER (eight-pushbutton A)	
S8	S41-8001-05	FULL POWER (eight-pushbutton A)	
S9	S41-8002-05	LOW FILTER (eight-pushbutton B)	
S10	S41-8002-05	HIGH FILTER (eight-pushbutton B)	
S11	S41-8002-05	AUDIO MUTING (eight-pushbutton B)	
S12	S41-8002-05	STEREO/MONO (eight-pushbutton B)	
S13	S41-8002-05	REV. (eight-pushbutton B)	
S14	S41-8002-05	TAPE MONITOR A (eight-pushbutton B)	
S15	S41-8002-05	TAPE MONITOR B (eight-pushbutton B)	
S16	S41-8002-05	FM MUTING (eight-pushbutton B)	
S17	S01-2008-05	REVERB MODE (rotary) F · 2 · 6 · 5	
S18	S40-1001-05	RHYTHM SELECTOR	
S19	S01-1009-05	RHYTHM MODE (rotary) F · 1 · 2 · 5	
S20	S59-1025-05	TIMER	
S21	S01-3006-05	MULTI PRESENCE TONE (rotary) F · 3 · 6 · 6	
S22	S01-6001-05	SELECTOR (rotary) F · 6 · 15 · 7	
S23	Y15-1000-80	FOOT SW	
S24	S31-6005-05	VU LEVEL (slide)	
S25	S31-6005-05	PRE OUT (slide)	
S26	S31-2007-05	PRE/MAIN SEPARATE SW (slide)	
S27	S31-2004-05	VOLTAGE SELECTOR (slide)	
S28	S36-1001-05	START SW (lever)	
TRANSISTOR/DIODE/THERMISTOR			
Q1		2SC711(F)	
Q2~5		2SC1030	
D1~4		1N60	
D5		5B1	
D6		S1B02-03B	
TH1, 2		SDT-35	
MISCELLANEOUS			
—	A03-0078-22	Cabinet	

● PARTS LIST

Circuit No.	Parts No.	Description	Remarks
—	A10-0260-11	Chassis	
—	A20-0408-21	Panel	
—	A21-0066-22	Ornamental plate	
—	A22-0100-11	Sub panel	
—	A23-0221-01	Rear panel	
—	A33-0014-03	Reflector	
—	A42-0007-12	Bottom plate	
—	A70-0055-23	Panel assembly	
—	B01-0049-04	Left side escutcheon	
—	B01-0050-04	Right side escutcheon	
—	B04-0033-04	Screen	
—	B04-0035-04	Screen	
—	B08-2010-04	Indicator (blue)	
—	B10-0058-02	Front glass	
—	B19-0104-03	Filter	
—	B20-0201-03	Dial calibrations	
—	B21-4006-05	Dial pointer assembly	
P.L	B30-0015-15	Fuse type pilot lamp	
P.L	B30-0026-15	STEREO indicator (30mA, 8V)	
P.L	B30-0039-05	Pilot lamp (50mA, 8V)	
M	B31-0006-05	Signal meter	
M	B31-0119-05	VU meter	
—	B40-0504-04	Destination plate (P)	
—	B41-0105-04	Power voltage plate (P)	
—	B41-0110-04	Voltage selector caution card (P)	
—	B42-0009-04	Passed sticker	
—	B42-0046-14	UL caution card (K)	
—	B42-0161-04	Loopstick antenna caution sticker	
—	B42-0219-04	UL caution card (K)	
—	B42-0267-04	UL caution card (K, U)	
—	B46-0002-00	Warranty card (K, U)	
—	B46-0003-00	Warranty card (U)	
—	B46-0021-00	Warranty card (P)	
—	B47-0029-04	TIMER caution card	
—	B47-0032-04	REVERB CRAMP caution card	
—	B50-0667-00	Instruction manual (K, P)	
—	B50-0668-00	Instruction manual (U)	
—	B52-0101-00	Schematic diagram	
—	B58-0003-00	Power supply caution card (U)	
—	B58-0043-00	Carton case caution card (K, P)	
—	B58-0101-00	Voltage selector caution card (U)	
—	B58-0114-04	Voltage selector caution card (P)	
—	B58-0125-00	Caution card	
—	B59-0018-00	KENWOOD service stations lists (U)	
—	D01-0009-05	Flywheel	
—	D15-0037-04	Small pulley	
—	D15-0038-04	Pulley	
—	D15-0073-04	Pulley x 4	
—	D20-0087-03	Dial shaft	
—	D21-0182-03	Shaft	
—	D22-0018-05	Shaft coupling	
—	D23-0060-04	Shaft bearing	
—	D32-0021-04	Switch stopper	
—	E02-0207-05	Transistor socket	

● PARTS LIST

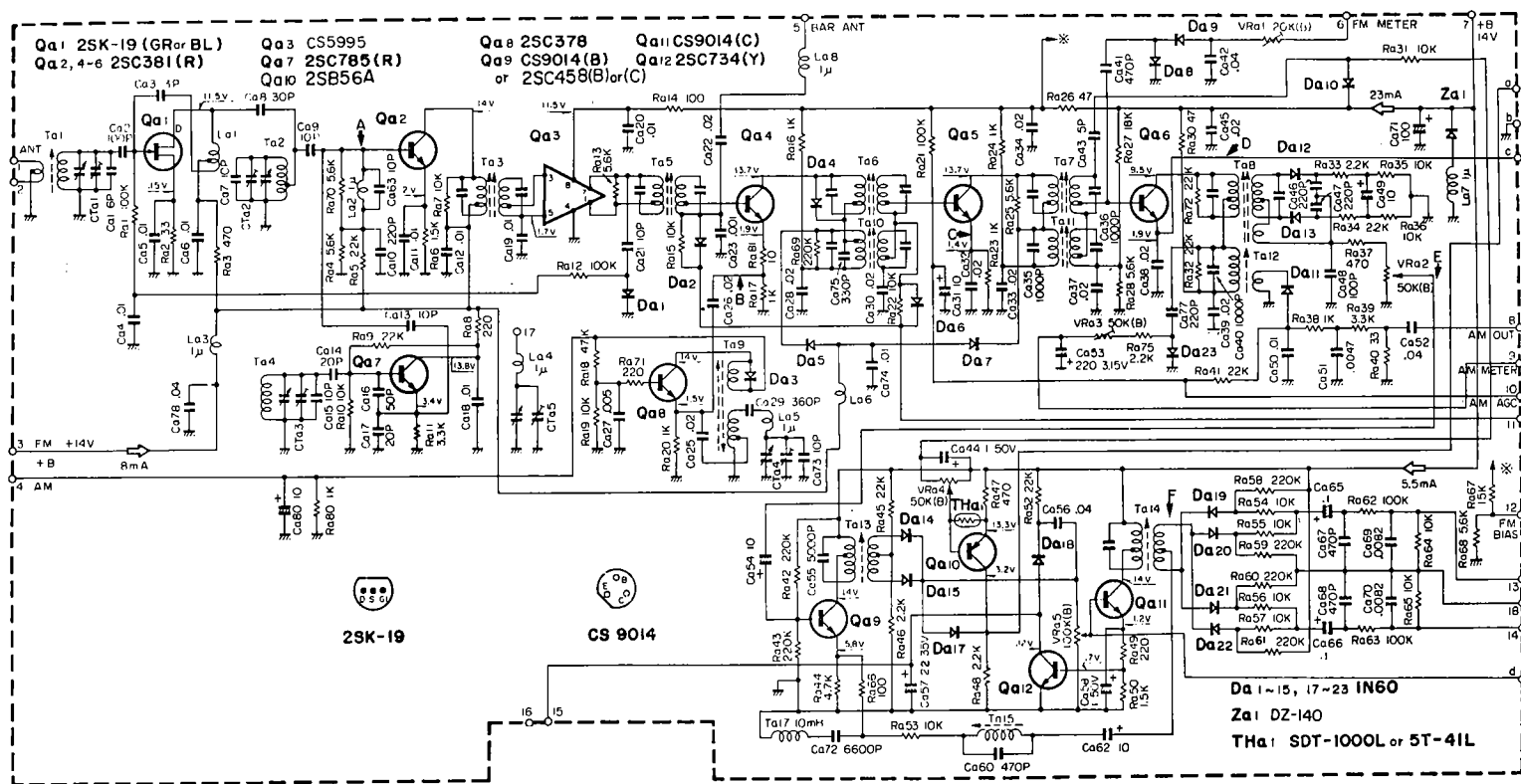
Circuit No.	Parts No.	Description	Remarks
—	E05-0203-05	Power plug (W)	
—	E08-0205-05	AC outlet	
J	E08-0217-05	Foot switch jack	
J	E11-0002-05	Phone jack (A)	
J	E11-0044-05	Phone jack	
J	E11-0048-05	Phone jack x 4	
J	E13-0205-05	2P pin jack	
J	E13-0401-05	4P pin jack (TAPE A)	
J	E13-0404-05	4P pin jack	
J	E13-0408-05	4P pin jack (TAPE B)	
J	E13-0802-05	8P pin jack	
—	E20-0418-03	4P terminal strips	
—	E20-0807-03	8P terminal strips	
—	E30-0046-05	Power cord (K, U, P)	
—	F01-0069-03	Head sink	
F	F05-3022-05 or F05-3024-05	Fuse (3A)	
—	F10-0205-04	Shield plate	
—	F10-0232-04	Shield plate	
—	F11-0141-04	Reflector box	
—	F30-0020-04	Bottom plate armature	
—	F31-0059-04	Armature	
—	F31-0060-04	Chassis armature	
—	F31-0061-04	Chassis armature	
—	G01-0045-14	Dial spring	
—	G01-0049-14	Dial spring x 5	
—	G13-0047-04	Reverb cushion	
—	G13-0050-04	Dial stopper	
—	G13-0051-04	Dial stopper	
—	H01-0648-04	Carton Case (K, U, P)	
—	H03-0047-04	Carton case (K, P)	
—	J02-0049-14	Legs	
—	J13-0016-15	Fuse holder	
—	J13-0023-05	Fuse holder x 7	
—	J19-0147-03	Meter stopper	
—	J19-0148-04	Dial stopper	
—	J19-0149-03	Push switch stopper	
—	J19-0150-04	Push switch stopper	
—	J19-0160-04	Dial stopper	
—	J20-0181-03	Switch stopper	
—	J21-0192-04	Amp. hardware	
—	J21-0480-13	Antenna stopper	
—	J21-0798-04	Pilot lamp hardware	
—	J21-0799-04	Pulley hardware	
—	J21-0800-03	Reverb hardware (A)	
—	J21-0801-03	Reverb hardware (B)	
—	J21-0801-04	Reverb hardware (C)	
—	J21-0546-04	Thermistor holder	
—	J21-0682-04	PC board hardware	
—	J25-0564-02	PC board (push switch with power)	
—	J25-0565-02	PC board (push switch)	

● PARTS LIST

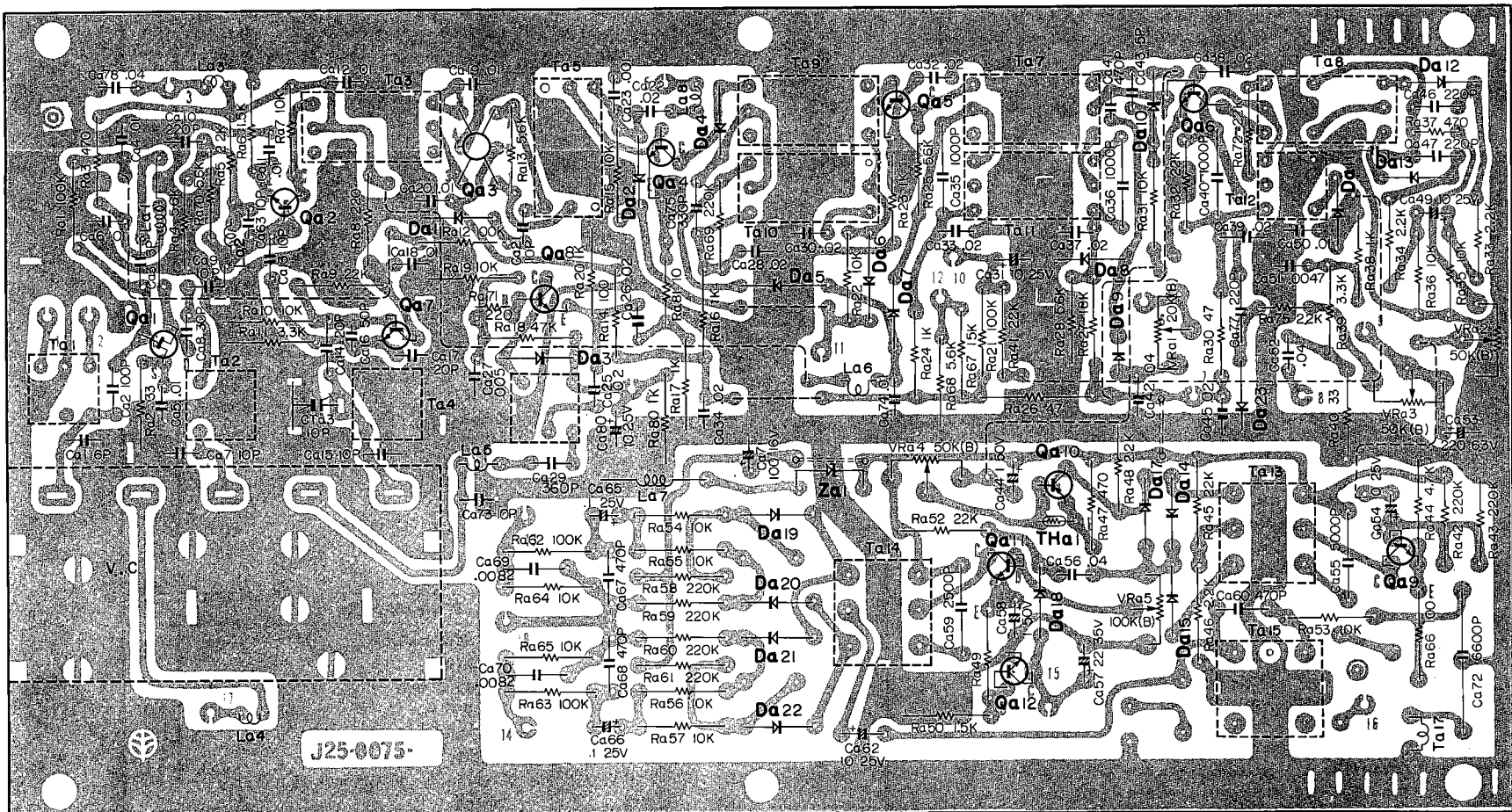
Circuit No.	Parts No.	Description	Remarks
—	J25-0566-04	PC board (FM MUTING)	
—	J25-0574-04	PC board (FM MUTING)	
—	K23-0049-03	Knob (VOLUME, SELECTOR)	
—	K23-0050-03	Knob (REVERB MODE)	
—	K23-0051-14	Knob (BALANCE, TEMPO, REVERB LEVEL)	
—	K23-0061-04	Knob (RHYTHM TONE, BASS, TREBLE)	
—	K23-0068-03	Knob (TIMER)	
—	K23-0069-04	Knob (RHYTHM MODE, MULTIPRESENCE, CONTROL SELECTOR)	
—	K23-0070-03	Knob (TUNING)	
—	K29-0020-14	Knob (REVERB CRAMP, PHONES LEVEL, MIC LEVEL)	
—	K29-0073-04	Knob (START SW)	
P.T	L03-0047-05	Power transformer (47V-2.2A, 27V-0.4A, 7.5V-2.8A)	
L1, 2	L15-0009-05	Choke coil (4H) in RHYTHM GENERATOR	
L3	L15-0010-05	Choke coil (100mH) in RHYTHM GENERATOR	
L1, 2	L33-0086-05	Ferri-inductor (1μH)	
—	T29-0003-05	Reverbration unit	
ANT	T90-0002-05	FM indoor antenna	
ANT	T90-0026-05	Loopstick antenna	
MIC	T91-0016-05	Microphone	

* In America add to the parts of (K), in Canada do to that of (P), and in other area do to that of (U).

SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS



SCHEMATIC DIAGRAM



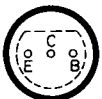
Qa1: 2SK19(GRorBL), Qa2,4~6: 2SC381(R), Qa3: CS5995(RorB), Qa7: 2SC785(R), Qa9: CS9014(B)or2SC458L(BorLC), Qa10: 2SB56A, Qa11: CS9014(C)or2SC458LC, Qa12: 2SC734(Y)
Da1,2,4~15, 17~23: 1N60(OorIN34A), Za1: ZB1-J4, THa1: SDT-1000Lor5T-41L

**BOTTOM VIEW
OF
TRANSISTOR**

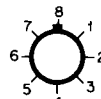
2SK19



2SC734
2SC381 R
2SC785R
2SC378



CS5995



2SB56A



CS9014



2SC458L



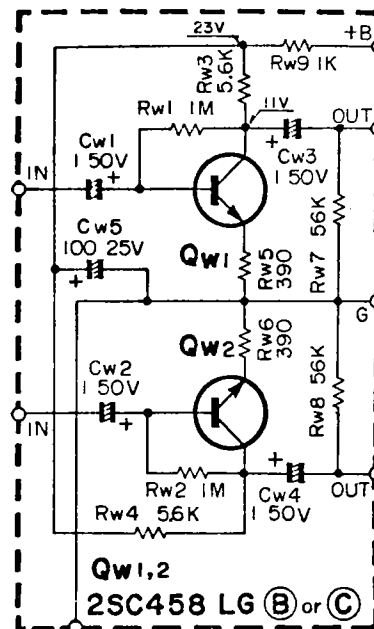
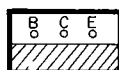
PARTS DESCRIPTION LIST

Circuit No.	Parts No.	Description	Re- marks
Ca1	CC94SL1H060D	TC ceramic	
	6pF ±0.5pF		
Ca2	CC94SL1H101K	TC ceramic	
Ca3	CC94SL1H030C	TC ceramic	
Ca4~6	CK94YG1E103Z	Ceramic	
Ca7	CC94TH1H100D	TC ceramic	
Ca8	CC94SH1H300K	TC ceramic	
Ca9	CC94SL1H100D	TC ceramic	
Ca10	CC94YX1H221K	TC ceramic	
Ca11, 12	CK94YG1E103Z	Ceramic	
Ca13	CC94TH1H100D	TC ceramic	
Ca14	CC94RG1H200K	TC ceramic	
Ca15	CC94SG1H100D	TC ceramic	
Ca16	CC94TH1H500K	TC ceramic	
Ca17	CC94TH1H200K	TC ceramic	
Ca18~20	CK94YG1E103Z	Ceramic	
Ca21	CC94SL1H100D	TC ceramic	
Ca22	CK94YG1E203Z	Ceramic	
Ca23	CK94YV1H102M	Ceramic	
Ca25, 26	CK94YG1E203Z	Ceramic	
Ca27	CK94YG1E502Z	Ceramic	
Ca28	CK94YG1E203Z	Ceramic	
Ca29	CK94YX1H361K	Ceramic	
Ca30	CK94YG1E203Z	Ceramic	
Ca31	CE04WE100	PC electrolytic	
Ca32~34	CK94YG1E203Z	Ceramic	
Ca35, 36	CK94YG1E203Z	Ceramic	
Ca37~39	CK94YG1E203Z	Ceramic	
Ca40	CO08S2B102J	Polystyrene	
Ca41	CK94YX1H471K	Ceramic	
Ca42	CK94YG1E403Z	Ceramic	
Ca43	CC94SL1H050D	TC ceramic	
Ca44	CE04W1H010	PC electrolytic	
Ca45	CK94YG1E203Z	Ceramic	
Ca46, 47	CC94SL1H221K	TC ceramic	
Ca48	CC94SL1H101K	TC ceramic	
Ca49	CE04WE100	PC electrolytic	
Ca50	CK94YV1H103M	Ceramic	
Ca51	CK94YV1H472M	Ceramic	
Ca52	CK94YG1E403Z	Ceramic	
Ca53	CE04W0J221	PC electrolytic	
Ca54	CE04WE100	PC electrolytic	
Ca55	CO08S2B502J	Polystyrene	
Ca56	CK94YG1E403Z	Ceramic	
Ca57	CE04W1V220	PC electrolytic	
Ca58	CE04W1H010	PC electrolytic	
Ca59	CO08S2B252J	Polystyrene	
Ca60	CM93D1H471J(Z)	Polystyrene	
Ca62	CE04WE100	PC electrolytic	
Ca63	CC94SL1H100D	TC ceramic	
Ca65, 66	CA06E1E410M	Solid aluminum	
Ca67, 68	CK94YX1H471K	Ceramic	
Ca69, 70	CO93M1H822J	Mylar	
Ca71	CE04W1C101	PC electrolytic	
Ca72	CO08S2B662J	Polystyrene	
Ca73	CC94TH1H100D	TC ceramic	
Ca74	CK94YV1H103M	Ceramic	
Ca75	CM93D1H331J(Z)	Polystyrene	
Ca77	CC94SL1H221K	TC ceramic	
Ca78	CK94YG1E403Z	Ceramic	
Ca80	CE04WE100	PC electrolytic	
Ca83	CTa3		
Ra1	PD14BY2E104J	Insulated carbon film	
Ra2	PD14BY2E330J	Insulated carbon film	
Ra3	PD14BY2E471J	Insulated carbon film	
Ra4	PD14BY2E562J	Insulated carbon film	
Ra5	PD14BY2E223J	Insulated carbon film	
Ra6	PD14BY2E152J	Insulated carbon film	
Ra7	PD14BY2E103J	Insulated carbon film	
Ra8	PD14BY2E221J	Insulated carbon film	
Ra9	PD14BY2E223J	Insulated carbon film	
Ra10	PD14BY2E103J	Insulated carbon film	
Ra11	PD14BY2E332J	Insulated carbon film	
Ra12	PD14BY2E104J	Insulated carbon film	
Ra13	PD14BY2E562J	Insulated carbon film	
Ra14	PD14BY2E101J	Insulated carbon film	
Ra15	PD14BY2E103J	Insulated carbon film	
Ra16, 17	PD14BY2E102J	Insulated carbon film	
Ra18	PD14BY2E473J	Insulated carbon film	
Ra19	PD14BY2E103J	Insulated carbon film	
Ra20	PD14BY2E102J	Insulated carbon film	
Ra21	PD14BY2E104J	Insulated carbon film	
Ra22	PD14BY2E103J	Insulated carbon film	
Ra23, 24	PD14BY2E102J	Insulated carbon film	
Ra25	PD14BY2E562J	Insulated carbon film	
Ra26	PD14BY2E470J	Insulated carbon film	
Ra27	PD14BY2E183J	Insulated carbon film	
Ra28	PD14BY2E562J	Insulated carbon film	
CAPACITOR			
RESISTOR			
Ra1	PD14BY2E104J	Insulated carbon film	
Ra2	PD14BY2E330J	Insulated carbon film	
Ra3	PD14BY2E471J	Insulated carbon film	
Ra4	PD14BY2E562J	Insulated carbon film	
Ra5	PD14BY2E223J	Insulated carbon film	
Ra6	PD14BY2E152J	Insulated carbon film	
Ra7	PD14BY2E103J	Insulated carbon film	
Ra8	PD14BY2E221J	Insulated carbon film	
Ra9	PD14BY2E223J	Insulated carbon film	
Ra10	PD14BY2E103J	Insulated carbon film	
Ra11	PD14BY2E332J	Insulated carbon film	
Ra12	PD14BY2E104J	Insulated carbon film	
Ra13	PD14BY2E562J	Insulated carbon film	
Ra14	PD14BY2E101J	Insulated carbon film	
Ra15	PD14BY2E103J	Insulated carbon film	
Ra16, 17	PD14BY2E102J	Insulated carbon film	
Ra18	PD14BY2E473J	Insulated carbon film	
Ra19	PD14BY2E103J	Insulated carbon film	
Ra20	PD14BY2E102J	Insulated carbon film	
Ra21	PD14BY2E104J	Insulated carbon film	
Ra22	PD14BY2E103J	Insulated carbon film	
Ra23, 24	PD14BY2E102J	Insulated carbon film	
Ra25	PD14BY2E562J	Insulated carbon film	
Ra26	PD14BY2E470J	Insulated carbon film	
Ra27	PD14BY2E183J	Insulated carbon film	
Ra28	PD14BY2E562J	Insulated carbon film	
POTENTIOMETER			
VRa1	R12-3014-05	PC trimmer potentiometer 20kΩ (B)	
VRa2 ~ 4	R12-4006-05	PC trimmer potentiometer 50kΩ (B)	
VRa5	R12-5013-05	PC trimmer potentiometer 100kΩ (B)	
IF TRANSFORMER			
La1	L33-0027-05	Choke coil	
La2	L33-0002-04	Choke coil	
La3~6	L33-0086-05	Ferrit-inductor	
La7	L33-0025-05	Choke coil	
La8	L33-0086-05	Ferrit-inductor	
Ta1	L34-0348-04	FM ANT coil	
Ta2	L34-0056-04	FM RF coil	
Ta3	L30-0150-05	FM IFT	
Ta4	L34-0057-04	FM OSC coil	
Ta5	L30-0151-05	FM IFT	
Ta6	L30-0152-05	FM IFT	
Ta7	L30-0153-05	FM IFT	
Ta8	L30-0137-05	FM IFT	
Ta9	L30-0082-05	AM OSC	
Ta10	L30-0080-05	AM IFT	
Ta11	L30-0081-05	FM IFT	
Ta12	L30-0052-05	AM IFT	
Ta13	L35-0035-05	19kHz coil	
Ta14	L35-0036-05	38kHz coil	
Ta15	L35-0030-05	72kHz coil	
Ta17	L33-0117-05	Ferrit-inductor	
FET/IC/TRANSISTOR			
Qa1	2SK-19 (GR or BL)		
Qa2	2SC381R		
Qa3	2SC381R		
Qa4~6	2SC381R		
Qa7	2SC785R		
Qa8	2SC378		
Qa9	CS9014B (2SC458L, B or C)		
Qa10	2SB56A		
Qa11	CS9014C (2SC485L, C)		
Qa12	2SC734Y		
DIODE/THERMISTOR			
Da1~15, 17~23	1N60 or 1N34A (YELLOW)		
Za1	DZ-140		
THa1	SDT-1000L or 5T-41L		
MISCELLANEOUS			
—	J25-0075-12	PC board	
—	CO1-0137-05	Variable capacitor	
—	F10-0048-03	Shield board A	
—	F10-0004-04	Shield board B	
—	F10-0187-04	Shield board C	
Description			

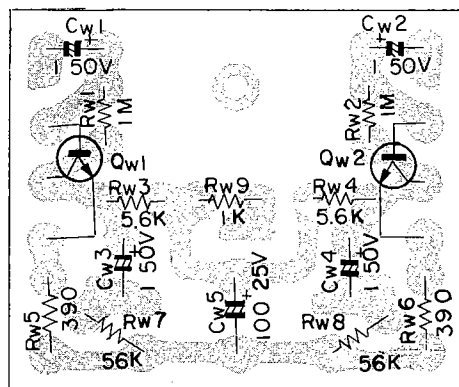
SCHEMATIC DIAGRAM

BOTTOM VIEW OF TRANSISTOR

2SC458LG



SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS



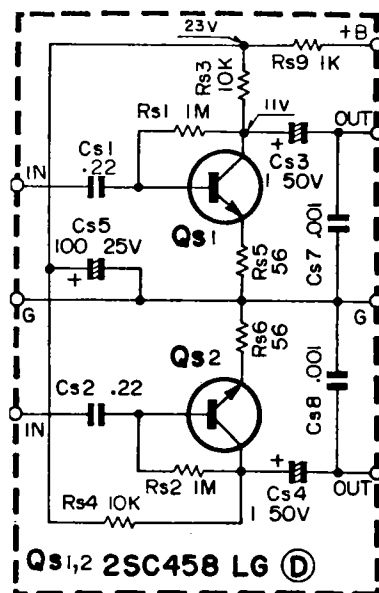
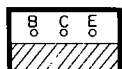
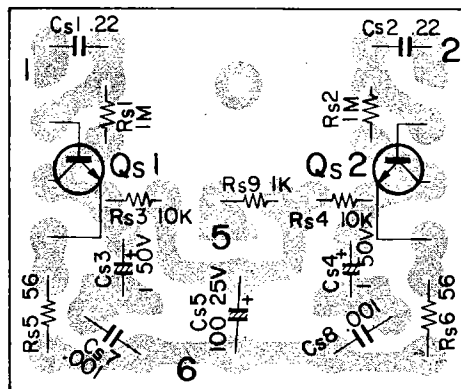
Qw1, 2 2SC 458LG (B) or (C)

PARTS DESCRIPTION LIST

Circuit No.	Parts No.	Description				Remarks
CAPACITOR						
Cd(W)1~4	CE04W1H010	PC electrolytic	1μF	50WV		
Cd(W)5	CE04W1E101	PC electrolytic	100μF	25WV		
RESISTOR						
Rd(W)1, 2	RC05GF2H105K	Carbon composition	1MΩ	±10%	1/2W	
Rd(W)3, 4	PD14CY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Rd(W)5, 6	PD14CY2E391J	Insulated carbon film	390Ω	±5%	1/4W	
Rd(W)7, 8	PD14CY2E563K	Insulated carbon film	56kΩ	±10%	1/4W	
Rd(W)9	PD14CY2E102K	Insulated carbon film	1kΩ	±10%	1/4W	
TRANSISTOR/PC BOARD						
Qd(S)1, 2 —	J25-0079-04	2SC458LG(B) or (C) PC board				

SCHEMATIC DIAGRAM
BOTTOM VIEW OF TRANSISTOR

2SC458LG

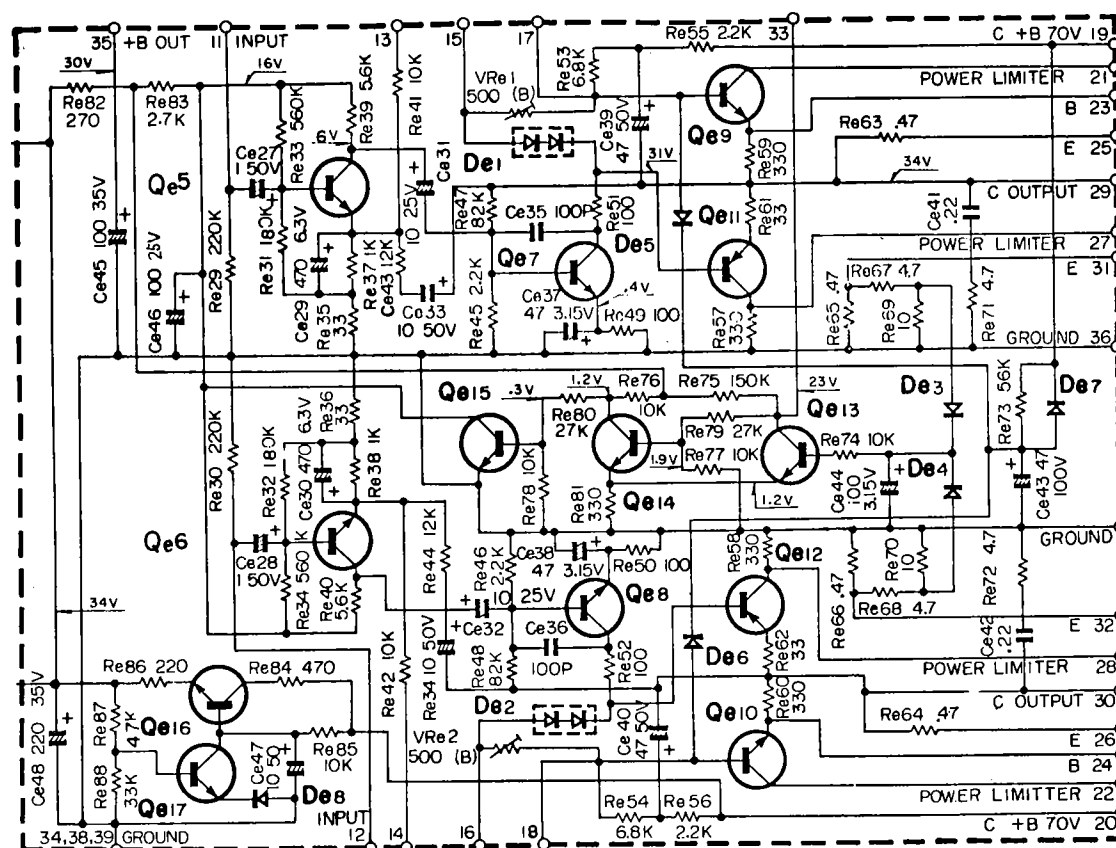
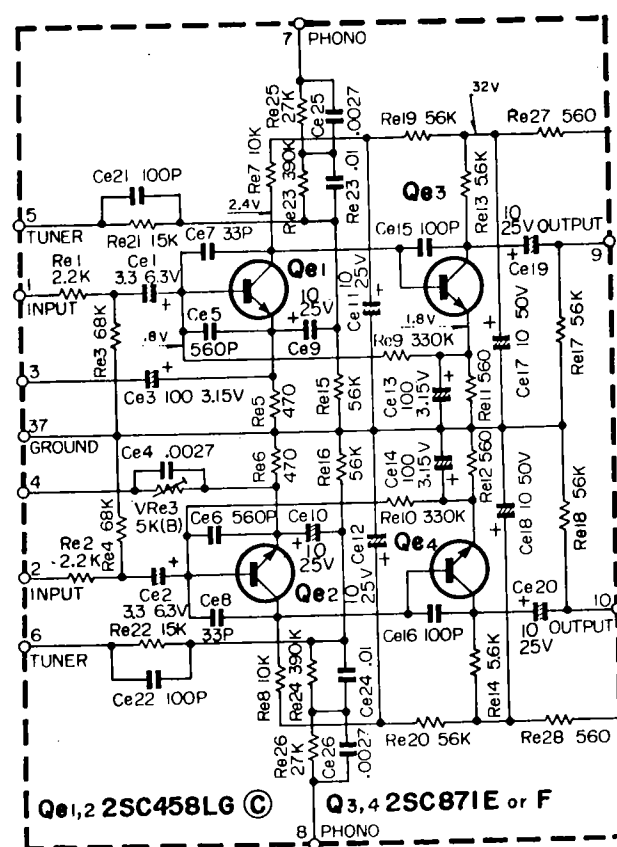

SEALED CIRCUIT ASSEMBLIES PAHNTOM VIEWS


Qs1, 2 2SC458LG (D)

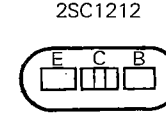
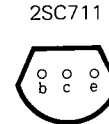
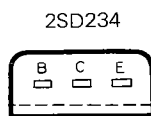
PARTS DESCRIPTION LIST

Circuit No.	Parts No.	Description				Remarks
CAPACITOR						
Cs1, 2	CS04D1ER22MorX	Tantalum	0.22μF	25WV		
Cs3, 4	CE04W1H010	PC electrolytic	1μF	50WV		
Cs5	CE04W1E101	PC electrolytic	100μF	25WV		
Cs7, 8	CK94YY1H102M	Ceramic	0.001μF	±20%		
RESISTOR						
Rs1, 2	RC05GF2H105K	Carbon composition	1MΩ	±10%	1/2W	
Rs3, 4	PD14CY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Rs5, 6	PD14CY2E560J	Insulated carbon film	56Ω	±5%	1/4W	
Rs9	PD14CY2E102K	Insulated carbon film	1kΩ	±10%	1/4W	
TRANSISTOR/PC BOARD						
Qs1, 2	J25-0077-04	2SC458LG (D)				
—		PC board				

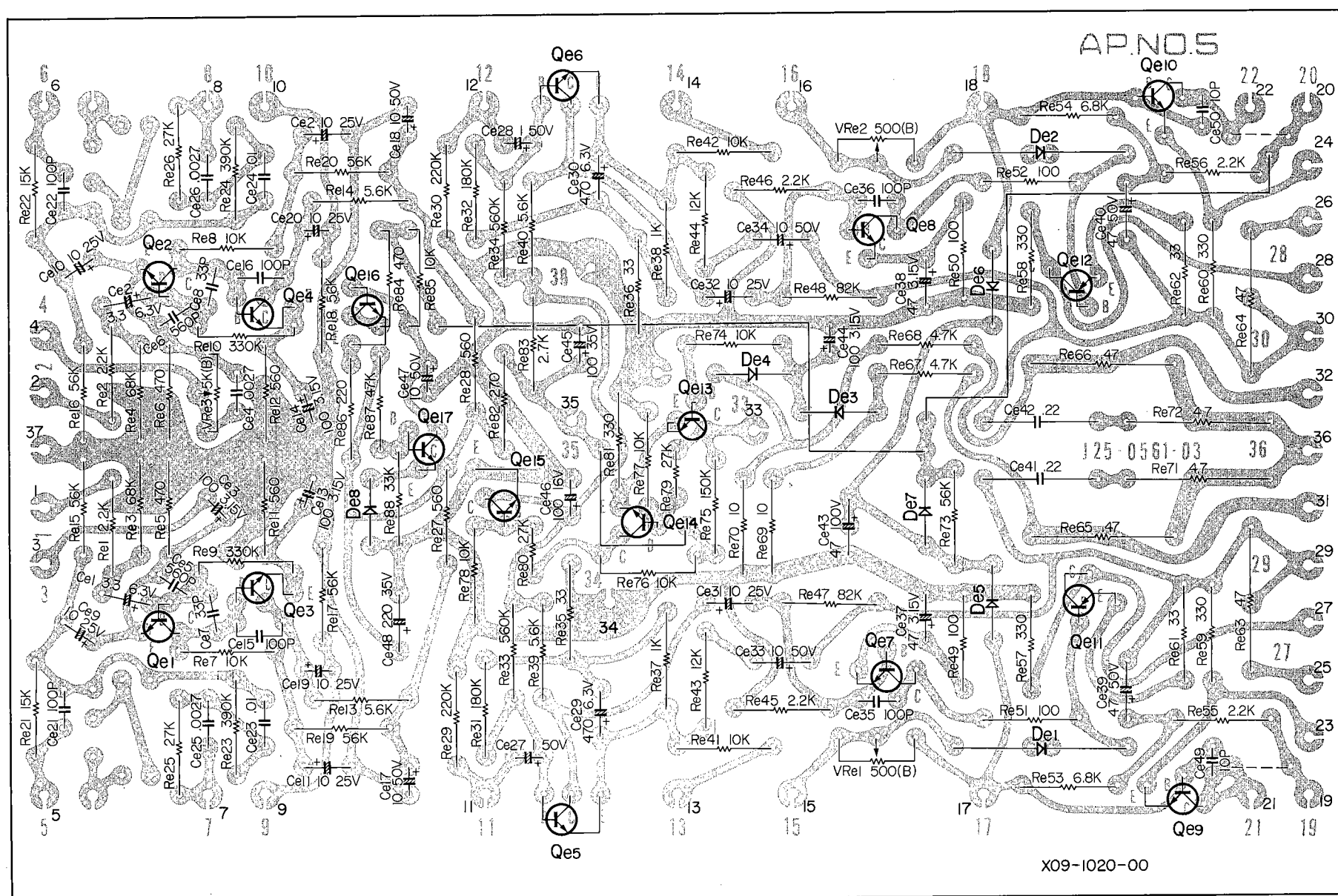
SCHEMATIC DIAGRAM



BOTTOM VIEW OF TRANSISTOR



SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS

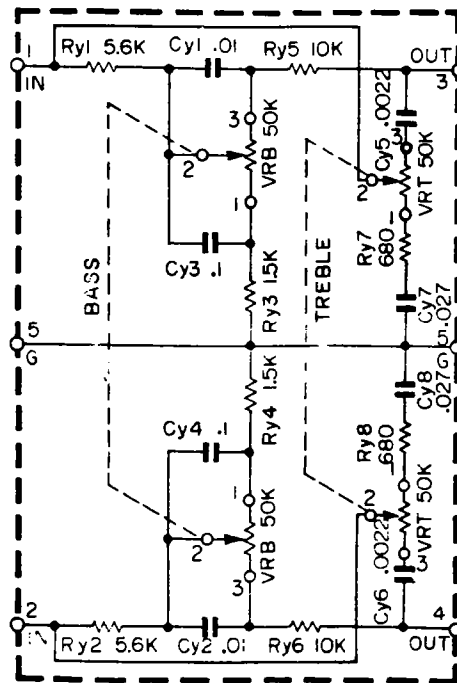


Qe1,2: 2SC458LG(C), Qe3,4: 2SC871 E or F, Qe5,6: 2SC458LG(C) or (D), Qe7,8: 2SC1212A(C), Qe9,10: 2SC1212A(B) or (C), Qe11,12: 2SA606, Qe13,14: 2SC458(B) or (C), Qe15: 2SC734(O) or (Y)
Qe16: 2SD234(O) or (Y), Qe17: 2SC711A(E), De1,2: MV-13, De3,4: 1N60, Des,5,6,7: 1S1553V, Des: 1S338T

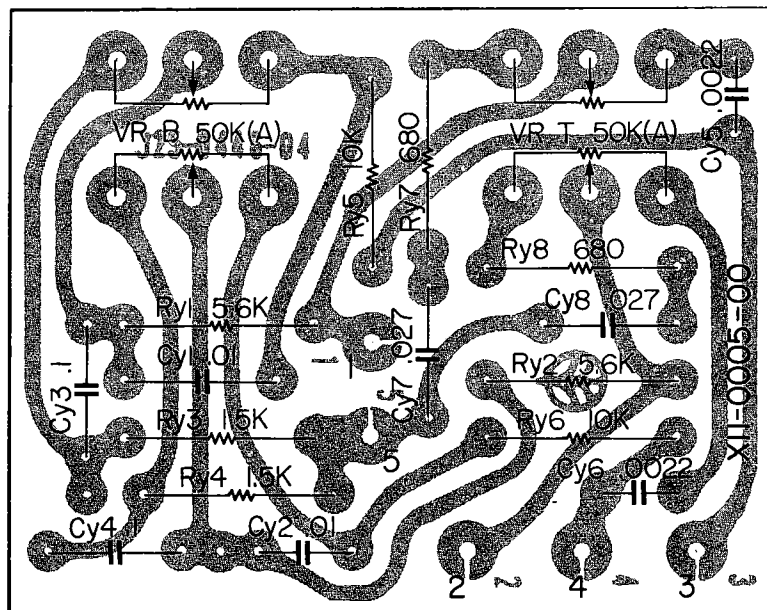
PARTS DESCRIPTION LIST

Ca1, 2	CS04D0J3R3M	Tantalum	3.3μF	6.3WV	CAPACITOR	Remarks
Ce3	CE04W0F101	PC electrolytic	100μF	3.15WV		
Ce4	CO93M1H272K	Mylar	0.0027μF	±10%		
Ce5, 6	CK94Y1H581M	Ceramic	560pF	±20%		
Ce7, 8	CC94SL1H330K	T/C ceramic	33pF	±10%		
Ce9 ~ 12	CE04W1E100	PC electrolytic	10μF	25WV		
Ce13, 14	CE04W0F101	PC electrolytic	100μF	3.15WV		
Ce15, 16	CS94SL1H101K	T/C ceramic	100pF	±10%		
Ce17, 18	CE04W1H100	PC electrolytic	10μF	50WV		
Ce19, 20	CE04W1E100	PC electrolytic	10μF	25WV		
Ce33, 34	CE04W1H100	PC electrolytic	10μF	50WV	RESISTOR	
Ce35, 36	CC94SL1H101K	T/C ceramic	100pF	±10%		
Ce37, 38	CE04W0F470	PC electrolytic	47μF	3.15WV		
Ce39, 40	CE04W1H470	PC electrolytic	47μF	50WV		
Ca41, 42	CO93M1H224M	Mylar	0.22μF	±20%		
Ca43	CE04W2A470	PC electrolytic	47μF	1.00WV		
Ca44	CE04W0F101	PC electrolytic	100μF	3.15WV		
Ca45	CE04W1V101	PC electrolytic	100μF	35WV		
Ca46	CE04W1E101	PC electrolytic	100μF	25WV		
Ca47	CE04W1H100	PC electrolytic	10μF	50WV		
Ca48	CE04W1V221	PC electrolytic	220μF	35WV	POTENTIOMETER/PC BOARD	
Qe1, 2	2SC458LG (C)	Insulated carbon film	±5%	1/4W		
Qe3, 4	2SC871 (E) or (F)	Insulated carbon film	±5%	1/4W		
Qe5, 6	2SC458LG (C) or (D)	Insulated carbon film	±5%	1/4W		
Qe7, 8	2SC1212A (C)	Insulated carbon film	±5%	1/4W		
Qe9, 10	2SC1212A (B) or (C)	Insulated carbon film	±5%	1/4W		
Qe11, 12	2SA606	Insulated carbon film	±5%	1/4W		
Qe13, 14	2SC458 (B) or (C)	Insulated carbon film	±5%	1/4W		
Qe15	2SC734 (O) or (Y)	Insulated carbon film	±5%	1/4W		
Qe16	2SD234 (O) or (Y)	Insulated carbon film	±5%	1/4W		
Qe17	2SC711A (E)	Insulated carbon film	±5%	1/4W	TRANSISTOR/DIODES	
De1, 2	MV-13	Insulated carbon film	±5%	1/4W		
De3, 4	1N60	Insulated carbon film	±5%	1/4W		
De5 ~ 7	1S1553V	Insulated carbon film	±5%	1/4W		
De8	1S338T	Insulated carbon film	±5%	1/4W		
VRe1, 2	R12-0039-05	PC trimmer potentiometer 500Ω (B)				
VRe3	R12-2015-05	PC trimmer potentiometer 5kΩ (B)				
—	J25-0561-03	PC board				

SCHEMATIC DIAGRAM



SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS



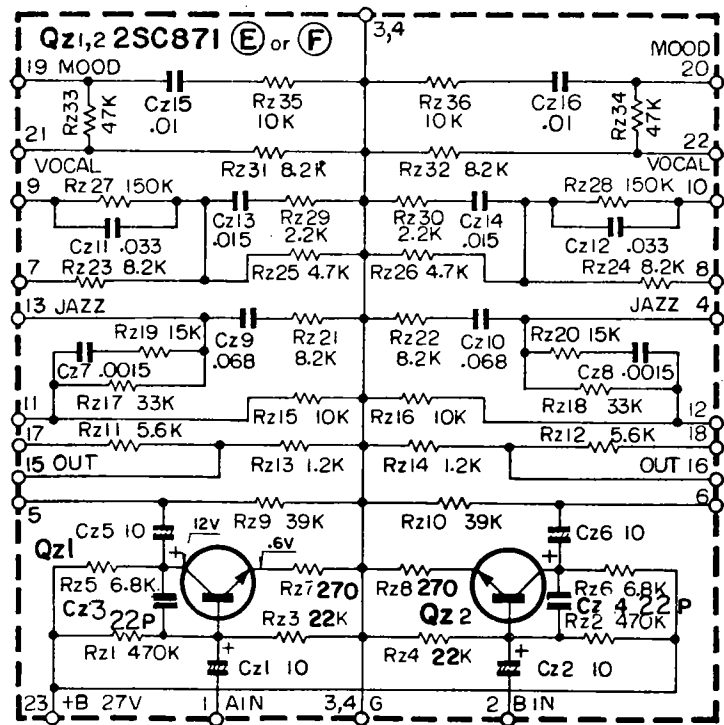
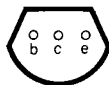
PARTS DESCRIPTION LIST

Circuit No.	Parts No.	Description				Remarks
CAPACITOR						
Cy1, 2	CQ93M1H103K	Mylar	0.01μF	±10%		
Cy3, 4	CQ93M1H104K	Mylar	0.1μF	±10%		
Cy5, 6	CQ93M1H222K	Mylar	0.0022μF	±10%		
Cy7, 8	CQ93M1H273K	Mylar	0.027μF	±10%		
RESISTOR						
Ry1, 2	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Ry3, 4	PD14BY2E152J	Insulated carbon film	1.5kΩ	±5%	1/4W	
Ry5, 6	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Ry7, 8	PD14BY2E681J	Insulated carbon film	680Ω	±5%	1/4W	
POTENTIOMETER/PC BOARD						
VRB	R06-4006-05	BASS 50kΩ(A) dual				
VRT	R06-4006-05	TREBLE 50kΩ(A) dual				
—	J25-0446-14	PC board				

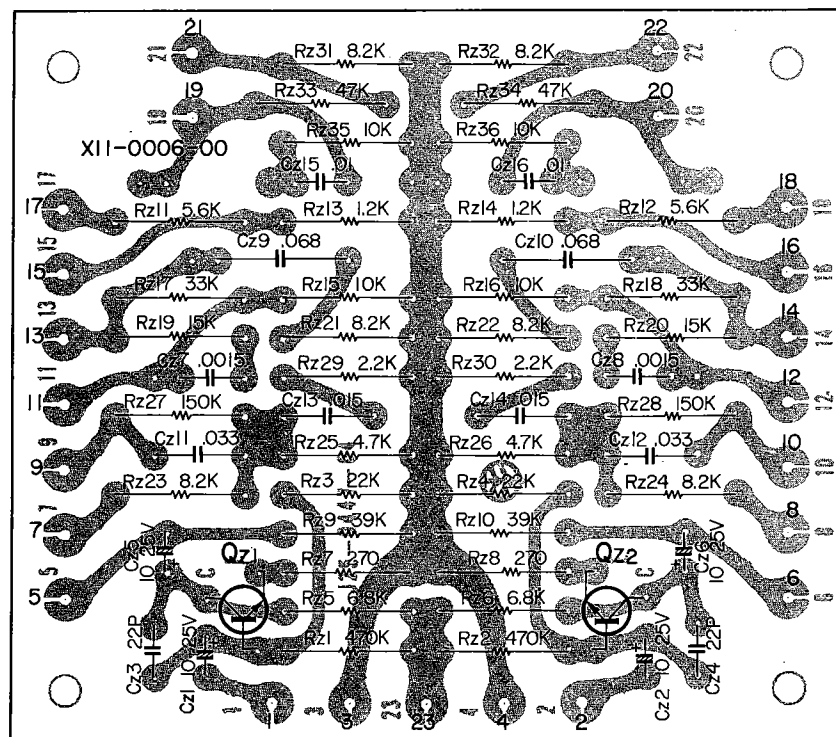
SCHEMATIC DIAGRAM

BOTTOM VIEW OF TRANSISTOR

2SC871



SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS

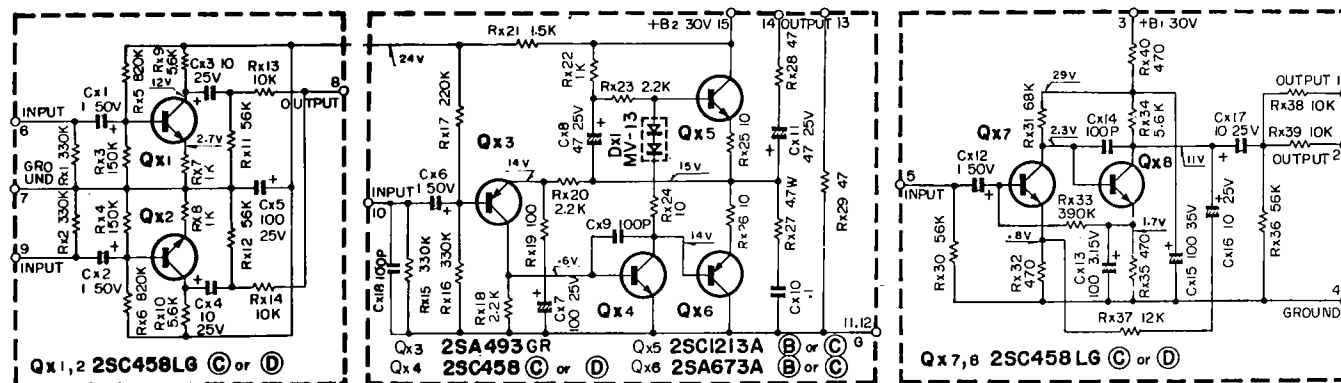


Qz1, 2 2SC871 (E) or (F)

PARTS DESCRIPTION LIST

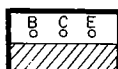
Circuit No.	Parts No.	Description				Remarks
CAPACITOR						
Cz1, 2	CE04W1E100	PC electrolytic	10μF	25WV		
Cz3, 4	CC94SL1H220K	TC ceramic	22pF	±10%		
Cz5, 6	CE04W1E100	PC electrolytic	10μF	25WV		
Cz7, 8	CQ93M1H152K	Mylar	0.0015μF	±10%		
Cz9, 10	CQ93M1H683K	Mylar	0.068μF	±10%		
Cz11, 12	CQ93M1H333K	Mylar	0.033μF	±10%		
Cz13, 14	CQ93M1H153K	Mylar	0.015μF	±10%		
Cz15, 16	CQ93M1H103K	Mylar	0.01μF	±10%		
RESISTOR						
Rz1, 2	PD14BY2E474J	Insulated carbon film	470kΩ	±5%	1/4W	
Rz3, 4	PD14BY2E223J	Insulated carbon film	22kΩ	±5%	1/4W	
Rz5, 6	PD14BY2E682J	Insulated carbon film	6.8kΩ	±5%	1/4W	
Rz7, 8	PD14BY2E271J	Insulated carbon film	270Ω	±5%	1/4W	
Rz9, 10	PD14BY2E393J	Insulated carbon film	390kΩ	±5%	1/4W	
Rz11, 12	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Rz13, 14	PD14BY2E122J	Insulated carbon film	1.2kΩ	±5%	1/4W	
Rz15, 16	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Rz17, 18	PD14BY2E333J	Insulated carbon film	33kΩ	±5%	1/4W	
Rz19, 20	PD14BY2E153J	Insulated carbon film	15kΩ	±5%	1/4W	
Rz21~24	PD14BY2E822J	Insulated carbon film	8.2kΩ	±5%	1/4W	
Rz25, 26	PD14BY2E472J	Insulated carbon film	4.7kΩ	±5%	1/4W	
Rz27, 28	PD14BY2E154J	Insulated carbon film	150kΩ	±5%	1/4W	
Rz29, 30	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Rz31, 32	PD14BY2E822J	Insulated carbon film	8.2kΩ	±5%	1/4W	
Rz33, 34	PD14BY2E473J	Insulated carbon film	47kΩ	±5%	1/4W	
Rz35, 36	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
TRANSISTOR/PC BOARD						
Qz1, 2		2SC871(E) or (F)				
—	J25-0447-04	PC board				

SCHEMATIC DIAGRAM

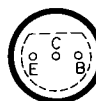


BOTTOM VIEW OF TRANSISTOR

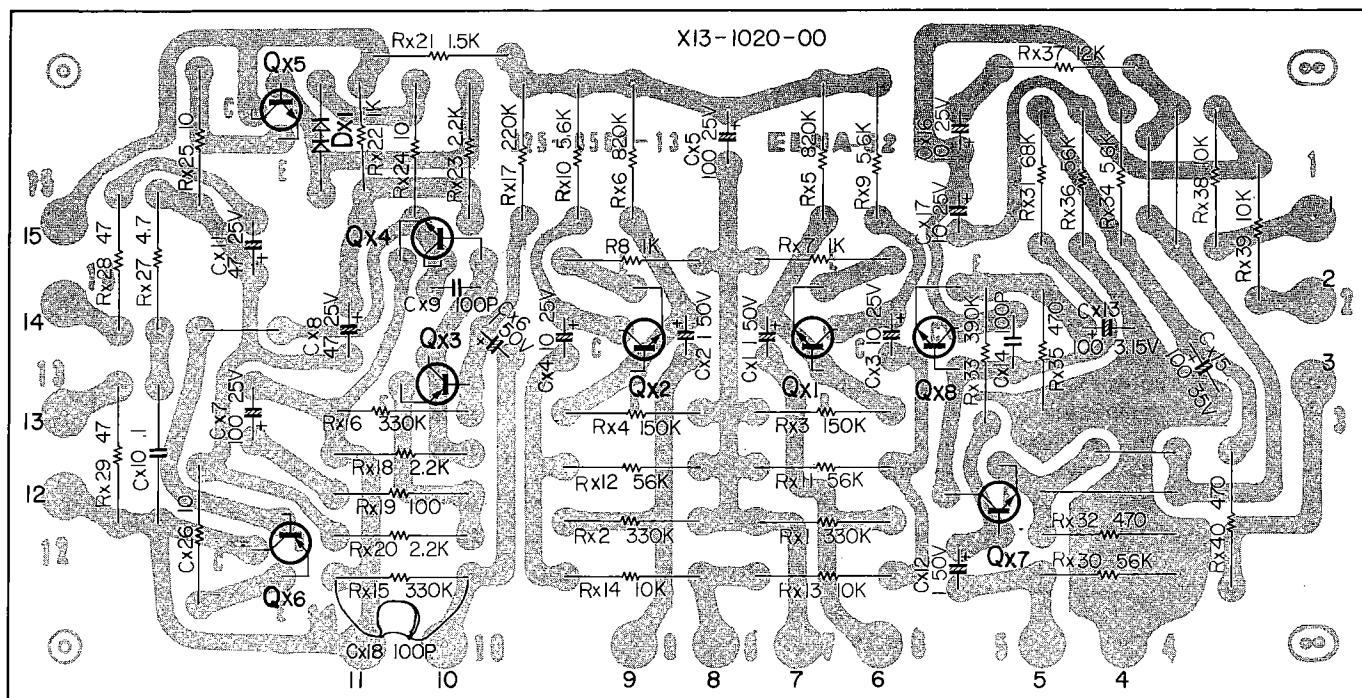
2SA673A
2SC458
2SC1213



2SA493



SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS



Qx1,2,7,8: 2SC458LG (C) or (D), Qx3: 2SA493GR, Qx4: 2SC458 (C) or (D), Qx5: 2SC1213A (B) or (C), Qx6: 2SA673A (B) or (C)
Dx1: MV-13

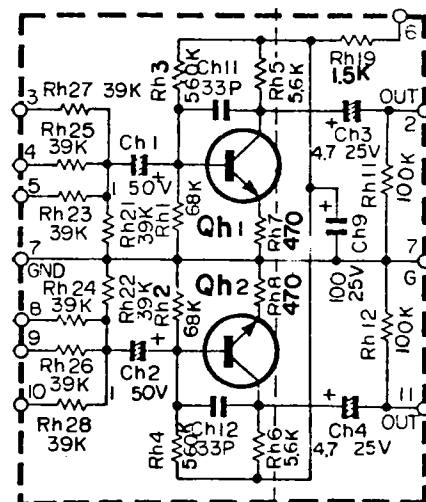
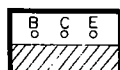
PARTS DESCRIPTION LIST

Circuit No.	Parts No.	Description				Remarks
CAPACITOR						
Cx1, 2	CE04W1H010	PC electrolytic	1μF	50WV		
Cx3, 4	CE04W1E100	PC electrolytic	10μF	25WV		
Cx5	CE04W1E101	PC electrolytic	100μF	25WV		
Cx6	CE04W1H010	PC electrolytic	1μF	50WV		
Cx7	CE04W1E101	PC electrolytic	100μF	25WV		
Cx8	CE04W1E470	PC electrolytic	47μF	25WV		
Cx9	CC94SL1H101K	TC ceramic	100pF	±10%		
Cx10	CQ93M1H104M	Mylar	0.1μF	±20%		
Cx11	CE04W1E470	PC electrolytic	47μF	25WV		
Cx12	CE04W1H010	PC electrolytic	1μF	50WV		
Cx13	CE04W0F101	PC electrolytic	100μF	3.15WV		
Cx14	CC94SL1H101K	TC ceramic	100pF	±10%		
Cx15	CE04W1V101	PC electrolytic	100μF	35WV		
Cx16, 17	CE04W1E100	PC electrolytic	10μF	25WV		
Cx18	CC94SL1H101K	TC ceramic	100μF	±10%		
RESISTOR						
Rx1, 2	PD14BY2E334J	Insulated carbon film	330kΩ	±5%	1/4W	
Rx3, 4	PD14BY2E154J	Insulated carbon film	150kΩ	±5%	1/4W	
Rx5, 6	PD14BY2E824J	Insulated carbon film	820kΩ	±5%	1/4W	
Rx7, 8	PD14BY2E102J	Insulated carbon film	1kΩ	±5%	1/4W	
Rx9, 10	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Rx11, 12	PD14BY2E563J	Insulated carbon film	56kΩ	±5%	1/4W	
Rx13, 14	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Rx15, 16	PD14BY2E334J	Insulated carbon film	330kΩ	±5%	1/4W	
Rx17	PD14BY2E224J	Insulated carbon film	220kΩ	±5%	1/4W	
Rx18	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Rx19	PD14BY2E101J	Insulated carbon film	100Ω	±5%	1/4W	
Rx20	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Rx21	PD14BY2E152J	Insulated carbon film	1.5kΩ	±5%	1/4W	
Rx22	PD14BY2E102J	Insulated carbon film	1kΩ	±5%	1/4W	
Rx23	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Rx24	PD14BY2E100J	Insulated carbon film	10Ω	±5%	1/4W	
Rx25, 26	RC05GF2H100K	Carbon composition	10Ω	±10%	1/2W	
Rx27	RC05GF2H4R7K	Carbon composition	4.7Ω	±10%	1/2W	
Rx28, 29	RC05GF2H470K	Carbon composition	47Ω	±10%	1/2W	
Rx30	PD14BY2E563J	Insulated carbon film	56kΩ	±5%	1/4W	
Rx31	PD14BY2E683J	Insulated carbon film	68kΩ	±5%	1/4W	
Rx32	PD14BY2E471J	Insulated carbon film	470Ω	±5%	1/4W	
Rx33	PD14BY2E394J	Insulated carbon film	390kΩ	±5%	1/4W	
Rx34	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Rx35	PD14BY2E471J	Insulated carbon film	470Ω	±5%	1/4W	
Rx36	PD14BY2E563J	Insulated carbon film	56kΩ	±5%	1/4W	
Rx37	PD14BY2E123J	Insulated carbon film	12kΩ	±5%	1/4W	
Rx38, 39	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Rx40	PD14BY2E471J	Insulated carbon film	470Ω	±5%	1/4W	
TRANSISTOR/DIODE/PC BOARD						
Qx1, 2		2SC458LG(C) or (D)				
Qx3		2SA493(GR)				
Qx4		2SC458(C) or (D)				
Qx5		2SC1213A(B) or (C)				
Qx6		2SA673A(B) or (C)				
Qx7, 8		2SC458LG(C) or (D)				
Dx1		MV-13				
—	J25-0562-13	PC board				

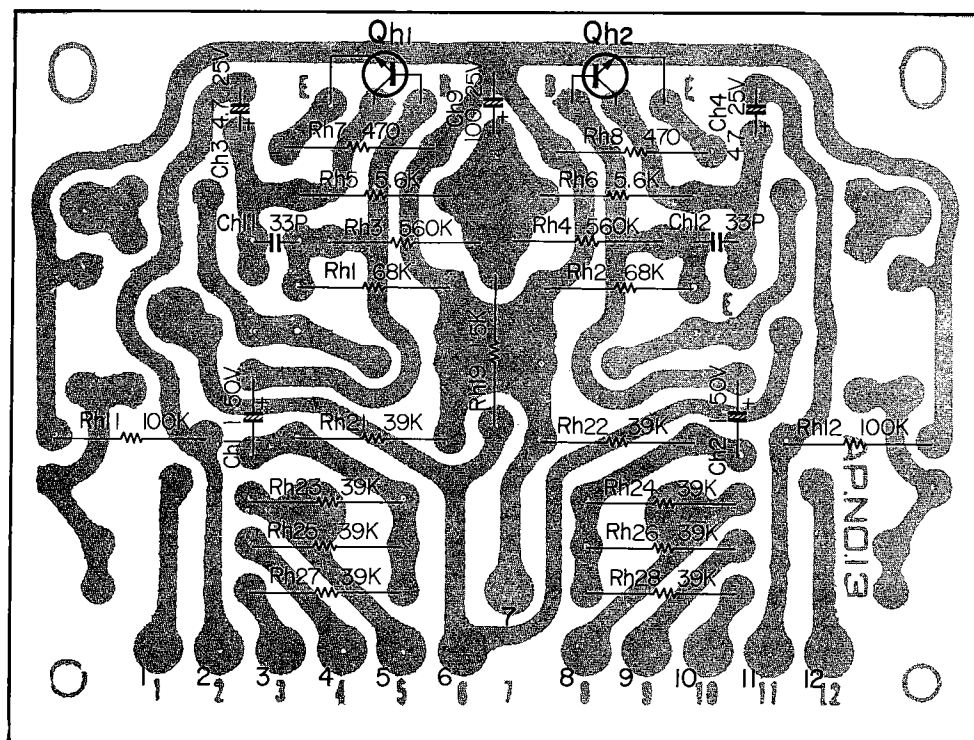
SCHEMATIC DIAGRAM

BOTTOM VIEW OF TRANSISTOR

2SC458



SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS



Qh1,2: 2SC458LG (C)

PARTS DESCRIPTION LIST

Circuit No.	Parts No.	Description				Remarks
CAPACITOR						
Ch1, 2	CE04W1H010	PC electrolytic	1 μ F	50WV		
Ch3, 4	CE04W1E4R7	PC electrolytic	4.7 μ F	25WV		
Ch9	CE04W1E101	PC electrolytic	100 μ F	25WV		
Ch11, 12	CC94SL1H330K	TC ceramic	33pF	$\pm$ 10%		
RESISTOR						
Rh1, 2	PD14BY2E683J	Insulated carbon film	68k Ω	$\pm$ 5%	1/4W	
Rh3, 4	PD14BY2E564J	Insulated carbon film	560k Ω	$\pm$ 5%	1/4W	
Rh5, 6	PD14BY2E562J	Insulated carbon film	5.6k Ω	$\pm$ 5%	1/4W	
Rh7, 8	PD14BY2E471J	Insulated carbon film	470 Ω	$\pm$ 5%	1/4W	
Rh11, 12	PD14BY2E104J	Insulated carbon film	100k Ω	$\pm$ 5%	1/4W	
Rh19	PD14BY2E152J	Insulated carbon film	1.5k Ω	$\pm$ 5%	1/4W	
Rh21~28	PD14BY2E393J	Insulated carbon film	39k Ω	$\pm$ 5%	1/4W	
TRANSISTOR/PC BOARD						
Qh1, 2	J25-0077-04	2SC458LG(C)				
—		PC board				



Manufactured by TRIO ELECTRONICS INC., TOKYO, JAPAN.